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ORIGINAL ARTICLES.

OUR DUTIES TOWARD THE CONSUMPTIVE POOR.[1]

BY S. A. KNOPF, M.D.,
OF NEW YORK.

"CONSUMPTION is a disease which has claimed more victims than all the wars and all the plagues and scourges of the human race. Even in the few short years since Koch's discovery, over 2,000,000 persons on this continent have succumbed to the fatal infection. In the last two decades in Cincinnati, out of a total mortality of 119,089 there have been 17,353 deaths from this dread disease. The annual tribute of the United States to this scourge is over 100,000 inhabitants. Each year the world yields up 1,095,000, each day 3,000, each minute two of its people, as a sacrifice to this plague. Of the 70,000,000 individuals now peopling the United States, 10,000,000 must inevitably die of this disease if the present ratio is kept up."

These were the impressive words of my distinguished confrère, Dr. Geo. F. Keene, of Rhode Island, at one of the recent meetings of the National Conference of Charities and Correction. Our own city, according to the estimate of Dr. Herman M. Biggs, has constantly at least 30,000 cases of consumption, and of these more than 15,000 are harbored in our worst tenement districts. Please do not consider me an alarmist when I tell you that a vast majority of them will die just at an age when they should be bread-winners and useful citizens. Statistics show that the death-rate of consumption is largest between the ages of seventeen and thirty-five. I have said that a vast majority of these 15,000 consumptive poor of our city will die, but this will not take place until they have spread the germs of their disease broadcast, and endangered the lives of many of their fellowmen, rich and poor alike, in short, of all with whom they may have come in prolonged contact.

Nevertheless, consumption is an eminently preventible and curable disease. It is curable in nearly all climes, not only in California and Colorado, but also in New York and New England. All that is needed for the treatment of consumption is relatively good and pure air, good food and plenty of it, the best hygienic and sanitary conditions, and willingness on the part of the patient to submit himself to the constant guidance of his physician.

You may ask, "If consumption can be prevented and cured, why do physicians let these people die?" My answer is: Consumption is not merely a medical, but also a social disease. Society must come to the aid of the physician; he alone cannot cope with this affliction. If society, if our wealthy citizens, if the many noble men and women, willing and able to help, could only know the life-history of some of these consumptive poor, they would realize what I mean by saying consumption is a social disease, and they would at once see where their duties lie.

Will you pardon me if I give you the history of two people, a man and a woman, two consumptive patients whose medical adviser I was for a short time. The story of the man I have told once before, last year, on a cold February night, when a few people had ventured out to visit the tenement-house exhibition and incidentally, were willing to listen to a little talk for which the Committee on Lectures had booked me. My subject was "Tenements and Tuberculosis." I described to my small audience that night my first visit to this man, and, since I learned his story on that occasion, you will permit me to relate it here as I related it there. From this description you will also learn what it really means to be a poor consumptive, living in one of our average tenement-houses.

I beg you to follow me in imagination on this visit. We have left our comfortable homes and arrived in the tenement districts where the other half lives. We pass the throng in the narrow street, make our way through the crowds of children playing on the sidewalk, and enter the dark hallway. The first thing that greets us is the odor peculiar to badly-housed humanity. You cannot define it, but those of you who occasionally labor among the poor know it only too well. Have you ever thought what this odor really means? It represents the exhalations of a multitude of people, the toxic products expelled during the process of expiration, which settle on the walls, ceiling, and stairs of these hallways. Chemistry has not yet been able to fix its composition; we know it exists and we know its deleterious influence on the individual who is obliged to live constantly in such a house. Some very prosaic people call this smell "the smell of humanity," or "the smell of poverty." I do not quite like these names, for I think them neither appropriate nor just. There can be humanity without smell, and amidst poverty there can be the sweet atmosphere of cleanliness and purity. If the bad odor we perceive in our wanderings through those dark halls must have a name, let us call it the smell of ignorance and greed. It is the result of ignorance on the part of the poor housed there, and who do not know the value of fresh

[1] Address delivered by invitation before a gathering of ladies, on January 30th, at the home of Mrs. S. M. Jarvis, 1 West 72d Street, in the interest of the Stony Wolde Sanatorium, an institution which has for its purpose the care of working-girls, poor young married women and children, suffering from tuberculosis.

air, sunlight, and the cleansing property of water—the trinity which, in combination, are the best antitoxin against those poisonous products. It is the result of greed on the part of the owner, for only a heartless man could tolerate such a condition of filth, foul air and darkness, as is characteristic of these tenement halls.

We ascend a few flights of stairs. Owing to the expense of artificial lighting, these halls are, of course, very dark, and, though we cannot see the dirt on the balustrades, we feel that it is there and only reluctantly take hold of them in order not to fall. We arrive at the rooms we are seeking. A knock at the door, a feeble invitation to come in, and we are in the midst of tuberculosis. There are two or three small rooms, but only one receives direct air and light. In a dark, small bedroom lies the patient; there is a different odor in this room, a distinct smell of disease mingled with the odor of cooking. We ask to have a window open, but the patient fears the draft. He is a husband and the father of six children, of whom two have died within the last year. The youngest of the remaining children is a few months old; the oldest, a girl of ten, attends to the household duties while the mother goes out to work. We greet our consumptive friend lying there, bid him cheer, and tell him that we have come to see what can be done for him. He faintly smiles and we ask him to tell his story. In a feeble voice, interrupted by fits of coughing, he tells us that up to two years ago he was a strong and vigorous man; he had a good position as a mechanic, lived in a better tenement than now, and drank only occasionally when life at home became too dull. Once he caught a severe cold. He went to a doctor. A few weeks of rest and some medicine and he got well. After some months another cold—the same treatment, the same result. And then again a cold, and so on, until the periods between the times when he could labor and earn became longer and longer. The savings from better times disappeared gradually; a cheaper tenement was sought; the visits to the doctor were given up, and the patient finally ceased to work altogether. To go to the dispensary was too much of an exertion. The faithful wife nursed him tenderly, but soon all the savings were gone. The burial of the two little ones—one having died of bowel complaint and the other of brain trouble—had cost so much that the mother decided to go out to work in order to support the family.

While listening to the pitiful story we look around the scantily-furnished rooms. The babies are playing on the dirty floor, touching everything with their little hands, putting their fingers in their mouths, and inhaling the dust laden with disease germs. When we consider that this case had only been reported a few weeks before, and that until then the patient had never exercised any care with regard to his expectoration, can we wonder that two of the children died within a few months, one from bowel complaint—which probably was nothing else than intestinal tuberculosis—and the other from brain trouble, which is only another name for tuberculous meningitis. The remaining little ones look pale and underfed. The little mother preparing the evening meal has seemingly a better appearance. She has to do so much running out in the street, to buy the provisions for the family that she gets more air, and if the father does not feel too badly she takes the baby out sometimes. Yet to the experienced eye there are already traces of overwork in this delicate child organism. The precautions the patient takes now with his expectoration consist in having placed before him on the floor a cuspidor partially filled with some antiseptic fluid. Owing to his weakness, he does not always succeed in depositing his sputum exactly in the center and sometimes he even fails to deposit it in the vessel at all. We call his attention to this lack of precaution and advise him to use a light mug which he can bring near to his mouth, or moist rags, which he should have burned in the evening on his wife's return.

Let us bid adieu to this unfortunate man for a moment, and let me speak to you of the case of a woman belonging to the class which you desire to help, for the benefit of which you have gathered here this afternoon and in the interest of which I have the honor to address you. A young person, a forewoman in a dressmaking establishment in one of our large department stores, presented herself to me for examination of her lungs. She had been ailing for nearly two years. I found her approaching the third stage of consumption, and yet she was working daily from half-past eight in the morning to half-past six in the evening; and when business was very brisk she stayed longer. This woman had been treated by several physicians and good physicians, but she did not improve. She came to me thinking I could do better, but I could not, and I will tell you why none of us succeeded in even bettering the condition of this poor woman. She could not, or would not entertain the thought of giving up work. Was she not the main support of the family, an old father and mother and some younger sisters, of whom only one earned a little as her assistant in the store? This devoted daughter and self-sacrificing sister was willing to take any kind of medicine, even follow my directions for better and richer food, but leave her work to spend all day outdoors in the open air, doing nothing, earning nothing, while her loved ones probably suffered from want, never! The story is a short one, but one of the saddest in my experience among the consumptive poor. It is pathetic to see such a noble-minded, large-hearted working-girl die because she would not cease working for those she loved. I was not spared seeing the last act of this drama. The younger sister, the assistant in the store, who was much attached to our heroine and almost her constant companion, presented herself likewise to me for examination. She too had contracted the disease, and at the time I saw her the tuberculous process had already made great inroads.

You have united here to save as many of such noble-hearted but unfortunate working girls as you can. You know as well as I do that if you could have taken that older sister in time to your sanatorium for treatment and could have kept her there for six or nine months, she would as an incipient consumptive, have had seventy to eighty out of a hundred chances of being cured, and lastingly cured. Could you have comforted her in her anxiety about parents and sisters by telling her: "Don't worry, child, while you are with us we will also see to it that your parents and sisters shall not be in want," she would gladly have stayed in the sanatorium, followed implicitly the directions for cure, would only too willingly have devoted all her time to getting well, and the peace of mind, created by your care of her loved ones, would have added to her chances for recovery.

In the sanatorium, which is not only a healing institution, but also a school of hygiene, she would have learned from actual experience how to take care of her expectoration, how to protect others from infection and herself from reinfection, what to do and what not to do in order to get well and remain well. Ten to one, with such knowledge and training taken home with her, into the modest dwelling of her parents, that young sanatorium patient would have been a hygienic factor in the family, and the younger sister would probably never have contracted the disease.

The task which you have set yourselves is not an easy one. As I have endeavored to show you, occasions will arise when you will have to support a whole family for months in order to save the life of a single working-girl. You will need much money, much sympathy, and much goodwill to do the work as you would like to do it, and as I wish you may be able to do it. But of the greatness of the work you are about to do, I venture to say that even you yourselves have but a faint idea. Every girl you take into your institution means the suppression of a center of infection. It is very often the pulmonary invalid in the earlier stages of the disease, when he or she is still up and about, working every day and helping to support the family, who constitutes a veritable danger to friends and relatives and also to the community. It is this class of consumptives, which, from either ignorance or carelessness, spread their disease broadcast by depositing their infectious sputum everywhere without any regard to the danger. A careless or ignorant expectorating consumptive can eliminate and distribute seven billions of bacilli in twenty-four hours. You know that the expectoration of a consumptive, when allowed to dry and become pulverized, may, when inhaled with the dust of the atmosphere, cause tuberculosis. Predisposed individuals, naturally weak persons, or those who have just recovered from diseases like typhoid fever, pneumonia, scarlatina, smallpox, or grip, are particularly susceptible to contracting the disease. Thus, it is beyond calculation how many useful lives you may save by taking care of and curing one consumptive working-girl.

To expect the State or city alone to cope with the tuberculosis problem is unreasonable. The one State sanatorium, which we hope to have in our Empire State ere long, even could it accommodate a thousand patients, would only be like "a drop of relief in an ocean of woe." I fervently hope that the State will never have a sanatorium of that size, and I know that those who counsel our State authorities in this matter will never permit so large an aggregation of consumptives in one place. What are needed are multiple sanatoria and special hospitals of moderate size, located near the large centers of population. Our own State and city should have several of these, and private philanthropy will create more. There must be institutions which receive men, women and children suffering from tuberculosis, not only for the very poor classes, but also for people of moderate means. There are many people among consumptives who are too proud to enter an entirely free institution; they are willing and able to pay something and do not wish to feel that they are objects of charity.

The sanatoria situated at a greater distance from the city should receive, as far as practicable, the incipient and more hopeful cases. The special hospitals situated in the outskirts of the city should be as much for the purpose of isolation as for treatment. Such a patient as I described to you in our visit to the tenement-house should not be allowed to remain in the surroundings in which we found him. He is not only a danger to his family, but he may even infect the rooms in which he lives to such an extent that whoever happens to live in them after his demise may also contract a tuberculous disease.

You have my most heartfelt wishes for success. A nobler work you could not have undertaken. By creating an institution such as you have in mind, you will save many good and useful lives among working-girls and women. Your sanatorium will be the house of hope to many for whom there is nothing but despair at this moment.

16 West Ninety-fifth Street.

THE INTRAVESICAL EVIDENCES OF PERIVESICAL INFLAMMATORY PROCESSES IN THE FEMALE.

BY FREDERIC BIERHOFF, M.D.,
OF NEW YORK.

WHEN, thanks to the kindness of my friend and colleague, Dr. R. Knorr, of Berlin, Germany, I was enabled to examine and cystoscope those of his clinical patients who presented symptoms referable to vesical changes, I was early struck by a condition which seemed to me, on first examination, to be a change similar to, if not identical with *vessie à colonnes*. Further examination of

the cases, however, convinced me that this view was erroneous, as the changes were invariably confined to *limited portions* of the bladder-wall, and as they occurred in patients who presented absolutely no obstruction to, nor difficulty in urination, as must precede the formation of *vessie à colonnes* (that, therefore, an hypertrophy of the muscular coat of the bladder might be excluded), but who had, in the majority of the cases, at some previous period, suffered from a parametritis, or allied conditions.

Upon calling the attention of Dr. Knorr to the subject, he suggested that we examine, whenever possible, all those cases giving a previous history of parametritis, perimetritis, or old malpositions, whether or no they presented vesical symptoms. This was, therefore, done, with the following result: Total number of cases examined, 443; history of parametritis, perimetritis, etc., obtainable in 214; symptoms referable to the urinary organs present in 264; "pericystitic strands" present in 136; no other discoverable cause for symptoms than perivesical changes in 8; perivesical changes, as accessory cause, in 67.

In cases of perivesical inflammation, the cystoscopic picture varies according to whether the pelvic inflammatory process is a recent, or an old one, and whether it has extended to and involved the bladder-wall, or only the adjacent tissues. If the process is recent, the exudate encroaches to a greater or less extent upon the bladder, the distensibility of which is, to a corresponding degree, impaired. If the exudate is unilateral, the excursions of the cystoscope are limited on the affected side, while normally free on the unaffected one. Similarly, if it occupies Douglas' cul-de-sac, the uterus tends to be somewhat displaced forward, and the excursions are limited toward the posterior wall of the bladder. In all these cases, if the amount of exudation is marked, the bladder-wall will be seen to bulge inward over the site of the exudate. When an inflammatory process in the tissues adjacent to the bladder extends to and involves the wall of this viscus (frequently an accompaniment of salpingitis and perisalpingitis), we at times meet with "œdema bullosum."[1]

When the process is an old one, and the exudate has gone on to organization, the cystoscopic picture is an entirely different one. In the same way that displacements of the uterus and adnexa may be caused by the traction of the fibrous strands, resulting from the organization and contraction of an inflammatory exudate, we may have the bladder affected by these strands pulling upon parts of its wall. But, while in the case of the uterus and adnexa, we get *displacements*, in the case of the bladder there is *distortion*. The most characteristic appearance, however, in these cases, is the presence, over *parts* of the bladder-wall, of sharp, scar-like formations, which rise, to a greater or less extent, above the surrounding wall, have a yellowish-white color, and tend to fimbriate at the ends. The parts usually affected are the lower lateral and the upper posterior and postero-lateral portions of the bladder.

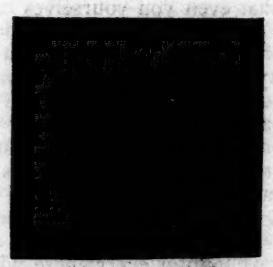
Two conditions are to be differentiated from the "pericystitic strands." These are columnar bladder and the contractions of the muscular coat of the bladder. Of these the former is found only when some obstruction to the outflow of

Fig. 1.

"Pericystic strands"; mild degree of development.

urine has existed for some time, and has led, as a consequence, to hypertrophy of the bladder-muscle. The obstruction may be mechanical (foreign body, marked prolapse, tumors), or spastic, as in the early stage of tabes.[1] When this condition is present, the *whole* of the bladder-wall is involved in the hypertrophic process. It will be seen that the wall is crossed by a network of projections above the surface. These projections appear to anastomose, or to cross each other freely. They are of rounded contour. The

Fig. 2.



"Pericystic strands"; marked degree of development.

"pericystitic strands" are, as before stated, limited to certain *circumscribed portions* of the bladder-wall, rise, as a rule, less markedly above the surface, tend to have fimbriated extremities, and are of *sharp* contour. The contractions of the bladder-muscle are easily excluded, for, when they occur, we see the muscle-bundles appear and then disappear, over the entire field of vision, with the contraction and relaxation of the bladder-wall.

[1] Kolischer, Die Erkrankungen der weiblichen Harnröhe und Blase. Casper, Handbüch der Cystoskopie.
Bierhoff, Oedema Bullosum Vesicae.—MEDICAL NEWS, Nov. 24, 1900.

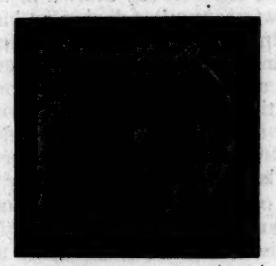
[1] Bierhoff, Dermatologisches Centralblatt, Vol. III., No. 8.

The prognosis of the recent condition is that of the exudative inflammatory processes themselves. The later changes are of interest chiefly because they may exert an influence as complicating factors in disturbances of urination, especially as an accompaniment, or additional cause of vesical hyperesthesia.

Treatment of the recent processes usually results in the disappearance of the vesical changes, although further involvement, with perforation of pelvic abscesses into the bladder-cavity, may occur. In the older cases, where the afore-mentioned strands are present, the prognosis, as regards the disappearance of urinary symptoms, is excellent. With regard to the full resorption of the strands, it must still remain an open question.

The treatment of the recent cases resolves itself into measures to relieve the underlying cause, and later to promote resorption of the inflammatory exudation. In those in which the strands

Fig. 3.



"Vessie à colonnes," with diverticulum, in a female.

are present, it consists of treating, first, of any inflammatory vesical changes, and, later, gradual distention of the bladder. The last-mentioned procedure, which gave us excellent results in a number of cases, is employed as follows: By means of a graduated syringe, a quantity of some indifferent fluid (boiled water, or boric-acid solution) is gently injected into the bladder, to the extent of its tolerance, and allowed to remain there for some minutes. It is then allowed to flow off until but a small quantity remains. On the following days gradually-increasing quantities are similarly injected, until, after a length of time which varies according to the extent of involvement and the elasticity of the strands, the bladder tolerates the normal amount of fluid. In this way we were enabled to remove entirely all vesical irritability, and, in several instances, to bring about a disappearance of the strands themselves.

651 Madison Avenue.

Consumptive Hospital.—At the regular monthly meeting of the Citizens' Committee for the erection of a consumptive hospital, in this city, the Secretary made a report of having received several donations for February, so that the total amount received at the present time is $20,842.

THE PREVENTION OF INSANITY.[1]

BY HENRY WALDO COE, M.D.,

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A LARGE proportion of the insane, not less than fifty per cent., should never have been born, and for this mistake physicians are to a certain extent responsible.

A young woman came under my care for acute mania. She was the affianced of a young man then in service in Cuba. She had suffered the usual distress present under such circumstances and her bravery had sustained her until her lover, after a severe illness, had returned to the United States. Upon receipt of a telegram that he was in the country and upon his way home in excellent health, she broke down completely and became so actively maniacal that three attendants were required to bring her on her journey of some hundreds of miles from a neighboring State for detention and treatment at Mindsease Retreat for mental cases connected with the Mt. Tabor Sanitarium. The family history disclosed the fact that the mother, before the girl's birth, had been insane and under restraint for some months; that at the time of her discharge from the asylum, then not quite recovered, the physician-in-charge had advised the husband and local doctor that the earlier pregnancy should occur, the better it would be for the patient. This advice proved good for the patient (although it would not ordinarily be so in one case in twenty) for, when pregnancy ensued a few weeks later, the mother entirely recovered her health which has since remained good.

There are others, however, involved in this momentous advice, how many, time and some generations of descendants being yet required to determine. The young woman referred to was its first victim. She made a good recovery, although the form of the malady in a few weeks became more and more of a melancholic type, which in time left her, and she was discharged from the institution. She was an educated woman, and she often spoke of the fact that, in view of her family history, she ought never to have been born. I talked to the father about her prospective marriage and, with his permission, gave my opinion to the young man, going over the whole subject in the presence of both these men so deeply interested in the grave problems surrounding the case. The patient was a sufferer from some ovarian disease which had made her somewhat of an invalid and I advised that the ovaries should be removed, not so much, however, on account of their diseased condition as to preclude the possibility of further propagation of defective offspring, marriage being, as is so often the case, insisted on both by the man and the woman to the prospective contract, in spite of the advice of the physician. I can see no serious objection to the marriage of a recovered case of insanity in a

[1]Read before the Wyoming State Medical Society, Oct. 10, 1900.

woman, if the dangers of the puerperium are eliminated and the prospects of progeny done away with through the removal of the ovaries, the prospective husband being informed of the condition of the woman and freely and in the presence of the family accepting the charge which this implies.

The sexual passion of the average woman, even with her ovaries, is of such trifling moment that ovariotomy need not on this account be largely considered. If the prospective husband is willing to enter the marriage bond with a recovered insane woman he should be even more willing to undertake the step if the danger of begetting offspring with such a taint has been entirely eliminated. Such a woman has thus a home, and I have known of several such instances where there seemed the highest degree of happiness to both parties. Recurrence under such circumstances is not at all likely; when it does take place, the effect is not very serious.

In the matter of marriage, the question of consanguinity is an important one. It would seem that Nature, heartless toward the individual, but careful of the race, as has been pointed out by one of our greatest poets, brings the hapless together in mating in order that the weaker strains may eventually become eliminated, and in no division of life is this fact more pronounced than in the tendencies of relatives to intermarry when neurotic or insane proclivities exist in the family. The disposition to intermarry in these cases has been said by many writers to come from the natural shyness of this class of individuals toward strangers and the consequent closer acquaintance with their relatives than with others. I believe, however, that it is more on account of the natural affinity of persons thus nervously situated.

We may lay it down as a rule to be invariably advocated that, when insanity is in a family, intermarriage should not be contracted. Unfortunately the physician's advice is seldom requested until after the engagement and then it is sometimes disregarded. It should not be difficult to break up such a match, because the defect is upon both sides and in either case a withdrawal may be pleaded on account of a condition of mental peril to the other on account of the weakness of the individual who is advocating the separation. It is quite difficult in other cases to break off a marriage into a family, no matter how notably insane. It is not easy for a young man to tell a young woman that on account of her family he must relinquish her; it is an ordeal which many young men will decline to undergo, preferring rather to chance future misery on untold generations, or more likely leaning upon that unreliable belief that no children will ensue as a result of such marriage, rather than inform the girl he loves most of any in the world that for any reason she is not good enough for him to marry.

When considering the tendency to insanity the time of the attack of the malady relative to the birth of the child is one of much moment in regard to the probabilities of the case. In the case of the daughter of a mother who late in life develops insanity, the father being of a vigorous, nervous stock, the daughter having been born early in the mother's life, there should not be given the same psychiatric value and objection to matrimony as though conditions were otherwise. In the case of a son under similar conditions a still more favorable opinion is possible. If the father had been the invalid and the mother healthy, a daughter's chances would be better than the son's, and *vice versa*. When there is a mental taint, either great or small, so far as the prospective offspring is concerned, if marriage is to be consented to at all, it should have our approval only when the other party to the contract comes of good, vigorous stock in which neither insanity, epilepsy or any of the grosser neuroses have been present.

When marriage has been effected the advice that no children shall be born is good, although it is much easier to give such advice than to enforce it. It is not often that a case comes under our knowledge, such as one recently known to me, in which a husband, whose mother died in an insane asylum from an illness resulting from traumatism, and who had himself two years before developed epilepsy after a meningeal inflammation, had duly considered the subject with his wife, and the sexual relation has been entirely suspended since the occurrence of the first epileptic seizure. The trouble is that people do not exactly understand the import of the mental and nervous symptoms, or, understanding them, do not feel like subjecting themselves to such rules of life as would be best under the circumstances. The best that we can do in most of these cases is to protest against large families, remembering that the ordeals of pregnancy, lactation and the care of rapidly-growing children are especially trying upon the nervous and mental powers of the neuropathic mother, and that a healthy woman in rapidly-supervening pregnancies is less able in her offspring to offset an evil mental tendency upon the part of her husband, as such pregnancies are repeated.

The husband, in either his own or his wife's defective condition, must be taught the absolute necessity for the sake of his children, if not for that of his wife, of extreme kindness and thoughtfulness toward the mother of the growing child during pregnancy and lactation. Everything of a distressing nature, which might through the mother produce an unfavorable result upon the child, must as far as possible be removed. Suitable food and exercise for the mother should be maintained during pregnancy, and it is an unfortunate thing when she must work too hard or be burdened with too many cares, family or otherwise, during this important period. A mother of a decidedly neurotic tendency should not nurse her child, both for her own sake and for the child's sake, and if she is of an irritable temperament, the child's early days should be passed in the hands of a carefully-selected nurse possessing equanimity of disposition, stability of character and the tact to govern children. It augurs well for such a child when it falls into such hands, and

I believe that if this were always so in these cases the percentage of insanity in this country would grow much less year by year, rather than show an increase as it does at present.

Sleep is the greatest foe which insanity has, as syphilis and heredity are its greatest friends. Multitudes of people sleep badly who are not insane and who will not become so, and in this country our most distressing patients are often found among those who are otherwise in fairly good health but who are troubled with insomnia. Because insomnia is not necessarily a precursor of insanity is no reason why we should not fully realize the pernicious possibilities along this line in individuals suffering therefrom. Against this symptom should be directed the very best efforts of the physician, because no one can tell until an explosion comes which is the serious and which the harmless case. It is so easy to give a hypnotic that we sometimes do so when we should not, and every effort should be made to relieve these cases by the use of a more suitable diet, proper outdoor exercise, the cold pack, baths, a vacation from work, and such changes in the ordinary affairs of life as may relieve those particular nerve-cells which are the victims of fatigue. We must remember our own responsibility touching the question of drug addiction, and be extremely careful that when a hypnotic is prescribed that the patient shall not have the opportunity of renewing the same without our orders.

During the past year no less than six patients in cases of drug addiction coming under our care have told me that the contraction of the habit was due to the physician in attendance. One of these was a patient for whom the drug was prescribed by his father, who was a physician. This habitué took the drug as a spray into the nose, as directed by rhinologists, before the cocaine habit was known. In this instance the habit had existed since long ago, when the first few grains had been administered. The physician in this case was entirely blameless, but I fear that in some other cases such was not entirely the fact, although I appreciate that the statements of these patients upon this subject are rarely reliable.

The food for the growing child of neurotic taint should be carefully selected and prepared. His food should be well cooked. His digestive apparatus, if defective, should be carefully studied and appropriately administered to. Clothing should be selected relative to the season of the year, but in the matter of both food and clothing his taste should not be pampered. He should sleep alone and have as much room as is convenient, with plenty of fresh air. His exercise should be of an outdoor, hardy character, even, if as is sometimes noted, there is a good deal of reluctance to outdoor life and to mixing with other children.

Masturbation in a boy should be guarded against. He should be warned at a tender age of the evils of this habit and a repetition of this warning should be made every year or so until he shall have reached the age of eighteen or twenty. In fact, this should be done in the case of all boys. A case of insanity under my care in a young man of twenty-five, in which masturbation was the undoubted cause, would not, in my own and the young man's opinion, have occurred, if the parent had given him timely warning. In this case, as in so many others, the carelessness of the boy's parents in not warning him and his own ignorance led up to the fateful sequence of this unfortunate habit.

The schooling of the child must be carefully planned. These children are, more often than otherwise, precocious, and the teachers and parents are proud to see their rapid mental development. Instead of being crowded, these little invalids, the irritability of whose nerve-cells rather than their special energy being the cause of their apparent brightness, should often be taken out of school, and, in any event, a brake should be put upon their ambition and their work. They had better be taught to strive to become like the ordinary child, rather than to be the exception.

Another class in the mental defectives embraces the dull child, who is often abused because of his stupidity until life becomes a burden to him. Although this represents a phase of mental character upon the other extreme, for both of these classes a special course should be selected at school, and those branches which are most difficult for them should be reduced to a minimum or entirely eliminated. It is much better that these individuals should reach middle life in good mental form, although not specially noted as scholars, than that they should carry off honors at school and college, because they have taken the full course and have on such account reached middle life in an indifferent state of mental health, if no more serious condition than this has supervened.

In all things the child should have his life shaped so that he is to be a man in the middle of the marching column. He should not be a leader and bear the necessary responsibilities consequent thereto. Neither should he be subject to the torments which afflict one who is harassed by being the last man, "the under dog." In the latter class are developed the dangerous anarchistic insane, many of whom are not confined but go about the world stirring up trouble. Moderation, therefore, should be enjoined and he should not be encouraged to believe that he is an individual above the ordinary, for the ego is usually unduly developed in nearly all of these cases.

As a business-man he should enjoy an out-of-door life as much as possible. His habits should be regular and he should be temperate in all things. We are all able to do better work, we are told, in eleven months than in twelve during any year, which I believe is quite true, but I know it is especially so with a man who has a weak place in his mental make-up.

The surgical defects of our patients who have possibilities for mental trouble before them should have the careful attention of our surgeons. Many cases become markedly improved after having been under the surgeon's care. Troubles which are a source of much worry, such as urethral stricture in men, hemorrhoids in both sexes and pelvic

disorders in women, merit attention, although in some instances surgical work has been carried to an extreme in this regard. I saw at Salt Lake this week a case in which a woman who had been insane had been subjected to the loss of her ovaries for insanity. Although the great nervous shock of a surgical operation of this character may sometimes shake the insane individual out of a state of lethargy and augment recovery, that result is so rare that the removal of healthy ovaries for insanity is, as an act of neurotherapy, an obsolete procedure. Nevertheless I always feel, as in the case mentioned, that when the gynecologist removes the ovaries, healthy or diseased, from an insane woman, unless the patient should die, he is doing a possible service to the race, although the mental recovery in such cases may not be accelerated.

Unlucky is the day in which a mental defective contracts syphilis and more so when the treatment therefor is insufficient. The terminal dementias and mental pareses are largely syphilitic in origin and in many of these cases treatment has not been thoroughly administered, largely because the mental state of these individuals makes them bad patients upon whom to enforce protracted treatment. In the young with congenital symptoms of this disease, where they is a tendency to insanity, it is inexcusable for the physician to fail to administer a full course of specific treatment.

All epilepsies need our closest attention; especially true is this regarding the *petit mal* forms. When one of our patients complains of sudden, dizzy spells and sometimes of moments of loss of consciousness, although she may not fall nor make an outward sign of this condition noticeable to others, it behooves us to take prompt measures at this time of probable cure for the relief of a condition which will likely lead on to *grand mal* attacks.

Hysteria and neurasthenia and kindred states must not be overlooked, but require as careful care as though a more acute illness was present. The strain upon the nervous system in these conditions is always great, and in occasional cases insanity does follow. Alcoholism or the gambling habit, whether with cards, in stock or otherwise, is a business or a sport for others than those of whom I am speaking. The nervous strain is too severe and both in success and in losses have I seen mental illness occur. The easiest prey seems to be he who has gone through many trying ordeals, including want and suffering, and who suddenly finds himself rich. Two cases like this have come to me from Alaska in men who had suffered from long misery, under which they had stood up bravely and without much apparent ill effect, to break down when Fortune smiled upon them. Both of these, however, were defectives and one had been a subject of syphilis fifteen years before.

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THE TONOMETER AND ITS VALUE IN DETERMINING ARTERIAL TENSION.[1]

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THE first experimental attempt to study the blood-pressure was made in 1727 by Stephen Hales[2], an English clergyman. He exposed a superficial artery in a horse and inserted a canula to which a straight glass rod was attached so that the height of the blood-stream could be observed. The hemometer of Magendie[3] appeared later, improving on Hales' apparatus in substituting for the straight tube a U-shaped glass tube filled with mercury. Nothing was done to determine the arterial pressure in man until 1856 when Faivre[3] inserted Magendie's hemometer in arteries exposed during operations.

The late Professor Albert[4] was interested in this subject and published the results of a long series of experiments, similar to those of Faivre, in 1883. Stricker[5] in 1866 proved that the capillaries are contractile; that changes in the size of their lumen can be produced by electrical irritation, and that this is associated with raising or lowering the arterial pressure. Marey[6] was the first to devise an instrument which could be used clinically, not surgically, to determine the arterial pressure. This instrument was not perfected until 1878. A number of appliances have since been devised, but most of them were too complicated for every-day use and suitable only for the physiological laboratory. The best known are those of Potain[7], Von Basch[8], Frey[9], Mosso[10], Hürthle[11], Oliver[12], Hill and Barnard[13] and Riva Rocci[14]. Some were most ingenious, but few proved practical. The sphygmomanometer of Von Basch had the greatest employment on account of its simplicity, and much valuable information regarding the blood-pressure was obtained through its use. Its worth, however, is relative, not absolute, and on account of its unreliability and large range of error it is not in large demand. Moreover, much skill is required to obtain even approximate results.

[1] Read at the annual meeting of the New York State Medical Society, Albany, January 28, 29, 30, 1901.

The simpler the mechanism and application of such an instrument the less is the personal error and the more valuable are the results. The tonometer is the most recent instrument of this sort and I desire to bring it to your attention. It was invented by Dr. Gustav Gaertner[15], Professor of Experimental Pathology at the Vienna University. He first exhibited the tonometer before the Vienna Gesellschaft der Aerzte in June, 1899. It met with instant approval and was at once employed in the wards of Nothnagel and Neusser at the Allgemeines Krankenhaus. Since then it has grown in favor throughout Austria and Germany. Descriptions of the tonometer with favorable comments have been made by Tschlenoff[16], Weiss[17], Schüle[18], Doering[19], Doleschal[20] and others. Doleschal made several hundred tests with the tonometer and sphygmomanometer for purposes of comparison and concluded that the tonometer was more exact, easier to apply and simpler to manage.

The tonometer consists of a pneumatic ring, mercury manometer, rubber ball and rubber tubing. The ring is made of metal and large enough to easily slip over and cover one of the phalanges. There is a hole in one side where the rubber tube is attached. The inside of the ring is covered with a thin rubber membrane and is air-tight, the only place that air can enter or escape being through the opening in the side. The manometer is simply a glass tube with a bulb filled with quicksilver. A scale is attached which registers up to 260 mm. The tubing is T-shaped with the ring, manometer and rubber ball attached on the free ends. These parts are separable but by the use of leather washers the joints are made air-tight. Pressure on the ball forces the air into the mercury bulb and pneumatic ring, raising the mercury in the one and distending the membrane in the other. To slowly regulate the pressure on the ball there is a small wooden press with a thumb-screw in which the ball is placed. Professor Gaertner has designed a small aneroid manometer which registers the same as the mercury scale and which can be carried in the pocket.

The technic is simple. The pneumatic ring is slipped over the second phalanx of one of the fingers and the blood removed from the finger-tip by rolling a small rubber band down to the joint. The rubber ball is then compressed until the pressure exerted upon the digital arteries by the ring is greater than that of the blood in the arteries. The rubber band is withdrawn and the finger-tip should remain anemic. The pressure on the ball is slowly and evenly diminished until the finger-tip becomes intensely red. The height of the mercury in the tube is then recorded.

All the earlier instruments were constructed so as to find when the pulsation in the vessel disappeared. Professor Gaertner reversed this and the tonometer records the pressure when the pulsation reappears. The finger is admirably adapted for this purpose. The two digital arteries provide the blood-supply and these are close to the surface and near the bone, and so can be completely compressed by the pneumatic ring. When the rubber band is removed and the finger remains anemic it shows that the ring is exerting a greater pressure than that in the arterial system. The pressure in the ring is gradually reduced, and the instant the pressure in the ring is equal to or a little less than the pressure in the arterial system the blood will flow through the arteries and the finger-tip will become hyperemic. The same instant a marked pulsation is felt by the patient. The mercury scale records exactly the amount of pressure exerted upon the finger, so that when the finger-tip becomes red the amount registered on the scale is approximately the amount of blood-pressure in the digital arteries.

The tonometer is not above criticism, nor is it perfect, but it is by far the simplest and most satisfactory instrument for the estimation of the blood-pressure yet devised. It must be absolutely air-tight and the rubber ring and tubing must be frequently renewed, as the rubber rapidly deteriorates when not in use, especially in summer.

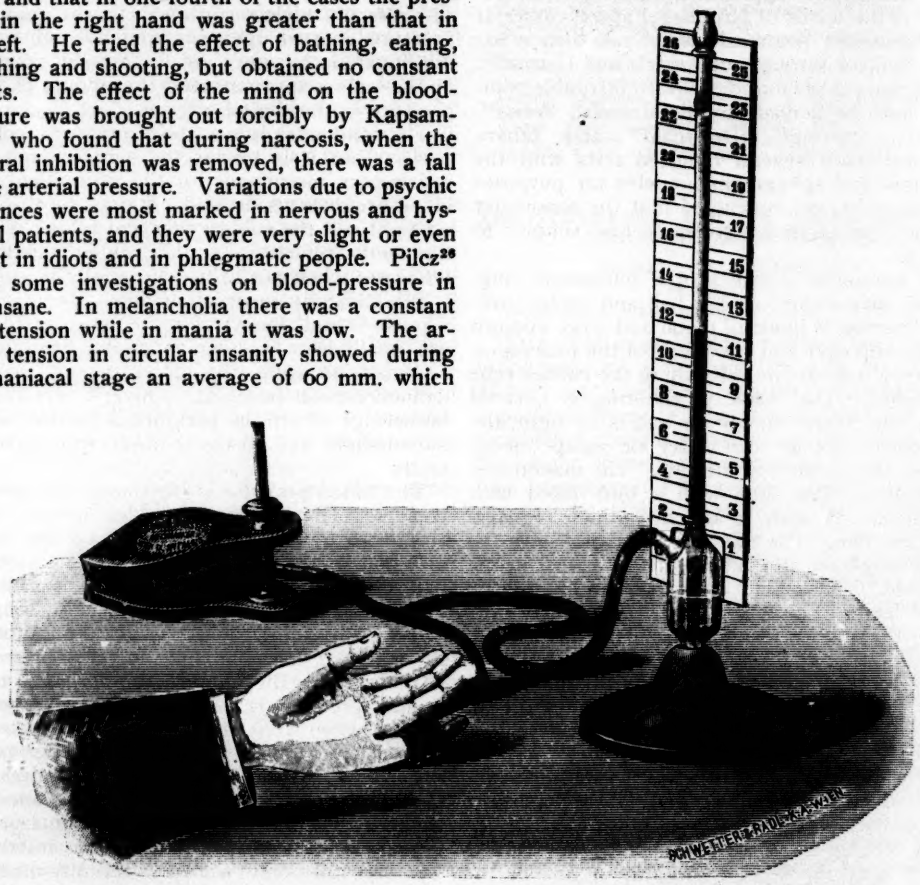
The difficulty in deciding about the tension of a pulse is well known, for the sense of touch is not infallible. As long as digital examinations are made to study the blood-pressure no exact deductions can be made. Oliver[21] says that our knowledge of arterial pressure is limited because our methods and means of observation have been faulty.

The blood-pressure is dependent on three factors: (1) The amount of cardiac power; (2) the amount of peripheral resistance; (3) the amount of blood in the vessels. The pressure is usually determined by the force the finger has to exert in order to stop the flow of blood in the radial artery. Physiologically there are three pressures; the maximal, minimal and middle. The maximal is the systolic, the minimal the diastolic, and the middle pressure is the average of the two. In general when we speak of the arterial pressure we refer to the middle pressure. To recognize these degrees of tension is an art and requires much skill and experience. A. Fraenkel[22] claimed that the tonometer records only the maximal pressure, a great fault of most of the previous instruments. To settle this point Gaertner[23] recently made some original and interesting experiments. He procured some dogs with white tails. The tails were shaved and rendered anemic by means of a rubber band, and the pneumatic ring applied. When the pressure in the ring was reduced to the proper point the section of the tail became red. The direct pressure was obtained by inserting a canula in the carotid or crural artery and at the same time the pressure in the vessels of the tail was determined by the tonometer. Different sets of observers attended to the two readings. The maximal and minimal pressures were obtained by the direct method and the average of the two gave the equivalent of the middle pressure. In every test the tonometer recorded either the exact middle pressure or a few millimeters above or below. This proved the absolute worth of the tonometer.

The conditions where an exact knowledge of the blood-pressure is important and even diagnostic are numerous.

A number of articles have appeared in the foreign medical journals this past year on work done with the tonometer. An exhaustive study of the arterial pressure in healthy adults was made by Jellinek[24]. He found that the normal pressure in 532 soldiers averaged between 100 and 160 mm., and that in one-fourth of the cases the pressure in the right hand was greater than that in the left. He tried the effect of bathing, eating, marching and shooting, but obtained no constant results. The effect of the mind on the blood-pressure was brought out forcibly by Kapsammer[25] who found that during narcosis, when the cerebral inhibition was removed, there was a fall in the arterial pressure. Variations due to psychic influences were most marked in nervous and hysterical patients, and they were very slight or even absent in idiots and in phlegmatic people. Pilcz[26] made some investigations on blood-pressure in the insane. In melancholia there was a constant high tension while in mania it was low. The arterial tension in circular insanity showed during the maniacal stage an average of 60 mm. which rose to 160 mm. in the period of melancholia. In the early stages of general paralysis the tension was normal, but it gradually sank as the disease progressed so that the tonometer would register between 50 and 80 mm. in the terminal stage.

Heim[27] found there was a high tension in neurasthenia and hysterical children and claims this constitutes an important diagnostic point. Neisser[28] emphasizes the importance of a correct estimation of the blood-pressure at the bedside both for prognosis and treatment. He has also found it of value in the prognosis of acute infectious diseases. One of the assistants in Nothnagel's clinic, Czyhlarz[29], ascertained the arterial tension before and after the administration of digitalis to cases with uncompensated heart-lesions and to healthy individuals. He reported that digitalis in small doses had no effect on the arterial tension nor on the amount of urine excreted in persons whose circulatory systems were normal. The same dose, however, in patients with heart-disease caused an increase both in the arterial tension and in the amount of urine passed. Lepsius and Schott[30] of Nauheim found by means of the tonometer that the carbon-dioxide baths brought about an increase of 10 to 20 mm. in the arterial tension of patients suffering from heart-disease. A. Fraenkel[31] described a case of albuminuria in which a digital examination of the pulse showed no increase in tension and where a marked increase was revealed by the tonometer. Grebner and Grünbaum[32] tested the effect of muscular work on the blood-pressure and found that there was an increase during the work which depended on the amount of work and the training of the individual. When the work ceased there was a fall in the pressure. They also showed that posture, time of day and respiration influenced the arterial tension. Wagner[33] claims that there is a fall in the blood-pressure during sleep. Kapsammer[34], who was one of Albert's assistants, made a number of experiments to discover the lowest fall, compatible with life, in the blood-pressure



during operations. In several of his cases where the tonometer registered below 60 mm. there was a normal pulse frequence and respiration, but they ended fatally from twelve hours to six days after the operation. He believes that 60 mm. is the lowest limit compatible with life and that the fall in pressure has more prognostic value than the respiration and the pulse. Schröder[35] studied the blood-pressure after gynecological operations and plotted out curves from the variations which he claims are as constant after certain operations as are temperature curves in certain diseases.

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THE PRESENT STATUS OF THE SUBARACHNOIDEAN INJECTION OF COCAINE FOR ANESTHESIA (CORNING-BIER METHOD).[1]

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AT this time there is probably no subject in medical literature which is receiving more attention than the subject mentioned in the above title. This procedure has been variously named by different authors. It is not my desire to criticise these titles. Some are inaccurate and others misleading. The following are sample titles taken at random from current literature: "Medullary injection of cocaine for analgesia," "medullary analgesia," "medullary narcosis," "subdural infiltration," "spinal anesthesia," "cocaine anesthesia of the spinal cord."

TO the author it would seem that "subarachnoidean injection of cocaine for anesthesia" would be rather more descriptive and more nearly anatomically correct. While this method enables us to produce anesthesia over about four-fifths of the body, from the toes to the level of the clavicles, nevertheless, it is only a contribution to local anesthesia by cocaine in contradistinction to general anesthesia by the inhalation method. Not unlike many other discoveries and advances in medicine it must pass through the ordeal of a period of probation, divided into three stages, *viz.*, enthusiasm, moderation, and finally therapeutical approbation. A superficial perusal of the current literature on subarachnoidean injection convinces one that the results of the application of this method are not always uniform or desirable. Thus an element of doubt presents itself as to whether all the operators have been exact in their technic or discreet in the selection of cases.

The spinal canal contains a structure of a highly-organized and sensitive character, encroachment upon its domain being in many instances more serious than upon that of the brain, owing to its anatomical inaccessibility in after-treatment, as, for instance, in streptococcus or other infection. It is true that the area directly involved in this procedure is no longer traversed by the spinal cord, but by a leash of nerves called the cauda equina. It is at this point that the cocaine solution, although diluted by the cephalorachidean fluid, has its strongest effect, thence by diffusion it anesthetizes the spinal roots higher up in the canal. The membranes and spaces are continuous with those of the cord above. The cocaine solution is rapidly disseminated upward, and, when injected between the fourth and fifth lumbar vertebræ, the analgesia ordinarily extends from the toes to the costal arch.

Fowler reports two cases of puncture between the second and third lumbar vertebræ in one of which the analgesia extended to the clavicular level; in the other, to the supra-orbital region. These peculiar deviations do not seem to depend upon the strength of the solution, nor on the amount of cerebrospinal fluid withdrawn. This phenomenon has not as yet been satisfactorily explained.

Is is safe to predict that in the near future some venturesome surgeons will try to outpoint their colleagues by injecting an intervertebral space higher with each operation and will thus gradually invade the ground now considered physiologically forbidden until they meet with disaster. It is claimed that idiosyncrasy to cocaine intoxication enacts an important rôle in this form of anesthesia. While it is well understood that cocaine behaves very erratically in many cases when administered either hypodermatically or by absorption, it would seem that the undesirable side-effects of subarachnoidean cocainization are produced by the same *modus operandi*,

[1] Read before Arapahoe County (Col.) Medical Society, Nov. 20, 1900.

namely, diffusion. In quite a number of cases reported the caloric and respiratory centers were involved to a most alarming degree. Probably the deaths reported were due to this cause. An anatomical study of the spinal canal teaches us that the blood-vessels and lymphatics are chiefly extradural, and that the subarachnoid membrane and pia mater can absorb but little of the drug. As the author reasons, the action is a local one upon the posterior nerve-roots, also, that when higher centers are involved it is by diffusion through the spinal fluid, and not through absorption by the spinal cord. The anesthesia of the nerve-roots from their point of entrance into the spinal canal to the postero-lateral groove of the cord, inhibits the transmission of sensation.

That this theory is plausible can be demonstrated by injecting solutions of cocaine, eucaine, or nirvanine into the immediate vicinity of a peripheral nerve-trunk and thus anesthetizing the entire area of its distribution. The idiosyncrasy to cocaine intoxication must not be overlooked, particularly when the solution comes in contact with a vital center. Therefore, it is presumable that the higher the injection is made, the greater the degree of danger. It would be quite an interesting experiment to study the diffusibility of a cocaine solution in the lumbar subarachnoid space of a dog. The animal should be immobilized in a box with his legs protruding from the bottom. The dog resting as in the standing position. He is next etherized (dogs do not bear chloroform well). The cocaine solution should be impregnated with some chemical which should not increase its specific gravity or diffusability in the spinal fluid. The hide is split up the dorsum and rapidly turned aside and a few drops of the fluid drawn off at different intervertebral points. A number of test-tubes should be at hand, containing a chemical solution which would show a reaction when the changed spinal fluid is added. A salt solution injected would give a milky reaction with a solution of nitrate of silver; or, chloride of iron added to the injection would give a black or inky reaction when added to a solution of tannic acid.

Probably, the best method would be to evaporate the fluid obtained and thus recover the crystals of cocaine. This of course would be quite tedious. The animal should be weighed and the dosage should be in proportion. Physiologists have a rule governing these proportions. Three points might possibly be demonstrated: (1) The rate of diffusion; (2) the strength of the solution at the most remote point; (3) the recognition of the drug in the ventricles of the brain. This is only thrown out as a suggestion which may be improved upon.

The enthusiasm of the surgeon must be tempered by the conscientious observance of the most minute details. To be misled by the *furor* is both reprehensible and sad. Cases should be carefully selected, and *this variety of anesthesia should be used only when ether and chloroform are contra-indicted.* As afore-mentioned, cocaine is at times very perverse in its physiologic effects; this also holds true when it is introduced into the spinal canal. Two cases were recently reported in which a minimum dose of fifteen minims of a one-half-of-one-per-cent. solution injected into a robust man was followed by most alarming symptoms. Six hours were spent in reviving this man, before he was considered out of danger. In another case, a feeble woman, twenty minims of a fresh four-per-cent. solution were injected. The analgesia merely reached the thighs and lasted only thirty minutes. The operation, one for hemorrhoids was finished under ether anesthesia. Subarachnoidean anesthesia has advantages which time and experience alone can determine. Its advantages at this writing do not appear to outweigh its disadvantages. Improved technic and further research will undoubtedly give it a certain sphere of usefulness in the armamentarium of the surgeon.

A decided advantage over general anesthesia is that the respiratory, cardiac and renal organs are not so seriously disturbed as by the inhalation method. Pneumonia is quite common in the feeble or aged after prolonged ether narcosis. All renal trobles are aggravated and prompt *exit lethalis* is often induced. Such cases are never reported as deaths from ether narcosis. The same is true of chloroform, when administered in obscure cardiac or brain cases.

The vomiting and nausea after ether, and sometimes after chloroform, are serious factors in inducing secondary hemorrhage in abdominal sections, brain or neck operations. We admit that vomiting and other symptoms are often present in the subarachnoidean method, but these can be overcome in a great measure by careful preliminary preparation of the patient and by an intelligent technic. Still another advantage is that of the ability of the patient to confer with the surgeon during the operation in case a modification of the original plan must be made and the patient's consent is necessary. As for instance, a tumor of the breast, arm or leg may be diagnosed as being of a benign character; during the operation the discovery is made that the neoplasm is sarcomatous and consent for amputation may be required. The disadvantages are severe, such as almost uncontrollable headache, lasting sometimes a week, nausea, vomiting, vertigo, cyanosis, elevated temperature, weakness and relaxation of the sphincters sometimes lasting several days. During the operation the patient may become apprehensive and restless, and the psychological disturbance may cause decided interference. Fowler reports a case in which he had to administer general anesthesia to finish the operation for this reason.

On the whole, the reports of American operators are more favorable than those of our European colleagues. Can it be that we are more careful than they in technic? Fifteen minims of a two-per-cent. solution of eucaine were used very satisfactorily by Keen. This drug can be boiled without destroying its physiological prop-

erties. Other observers are not so well pleased with this drug. Fowler has tried antipyrin on a stoical, illiterate Italian woman, but he cannot say that it was satisfactory. I have not learned as yet that nirvanine has been used in this way. It is ten times less toxic than cocaine and is in itself an antiseptic. Its analgesic effects are as strong as that of cocaine.

Various reasons are assigned for the many untoward complications and failures, such as stale solutions, non-sterile solutions, excessive dosage, insufficient dosage, failure to deposit the solution into the subarachnoid space, trauma by the needle of the nerves in the cauda equina, the liberation of too much cephalorachidean fluid, the liberation of none or not enough, the use of the needle if it is too large and permits the escape of cocaine solution along its sides, the use of steel needles which are apt to break, the too early removal of the needle and escape of the solution into the erector spinæ muscles.

The matter of preparing the solution has not been settled. Corning is satisfied with boiling his solution for five minutes in a test-tube. Tuffier prepares his solution in the laboratory. The cocaine is first dissolved in sterile or distilled water, then sealed in glass bulbs and subjected for one hour on two successive days to a temperature of 175° F. Goldan boils filtered water ten minutes; he then pours off the excess, leaving one dram to which he adds the cocaine and keeps the solution just below the boiling point for two minutes. This insures a sterile solution. He has met with success in 25 cases, and advises making a fresh solution for every case and not keeping it from day to day. J. Bion Bogart boils the solution two minutes and has had excellent results in a large number of cases.

Probably the sterilized cocaine solution put up by a Chicago house is the most convenient and reliable form. It is generally understood that cocaine loses its efficacy when boiled. Goldan (MEDICAL NEWS, Nov. 19, 1900) says: "After considerable experience and careful study I have arrived at the following conclusions: That the intraspinal cocainization would be superior to general anesthesia, as administered in many cases, there is no doubt. That it is superior, either in safety or advantages, to our three anesthetics properly selected and skilfully administered, I, for one, do not believe."

Tuffier says that cardiac disease is not a contraindication. M. Racoviceneau-Petesei, after an experience of 125 cases, does not believe that this method will replace ether or chloroform anesthesia.

Marx has had an experience of forty cases in obstetric practice and speaks of the method in the most flattering terms. Dr. W. Mitchell of this city prepares the solution after his own method, which is both scientific and reliable. It is strictly aseptic.

In conclusion, I hope it may not be considered bold or presumptious on my part to suggest that there is a medico-legal element in these experiments. To avoid the possibility of a suit for damages in case of accident or untoward results, it would be advisable to secure absolute consent of the patient and family, in writing or in the presence of witnesses, after explaining to them the merits and disadvantages of this procedure which carries with it no small element of risk.

CLINICAL MEMORANDUM.

A CASE OF PERONEAL NERVE-PALSY FROM MUSCULAR EFFORT.

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THE following case of traumatic neuritis of the peroneal nerve, undoubtedly due to muscular effort, is believed by the writer to be unique and worthy of detailed report.

E. L. M., male, white, age twenty-two years, United States born, commercial traveler; previously healthy; family history good. In March, 1899, while alighting from a slowly-moving train he stepped upon an inclined plane, slipped and fell. To save himself when falling he sat down, sharply flexing the left ankle and knee. At once he experienced severe pain from the knee downward in the leg, and when he attempted to stand the hamstring muscles drew the leg upward and prevented him from extending it. To use his own words, "it cramped."

He was taken in an ambulance to a hospital where it was found that, while he had suffered no fracture, the contraction of the hamstring muscles was so great as to prevent extension. Pain was very severe on the top and side of the foot and ankle. The "bottom of my foot," as he expressed it, "was all right." Power was at once lost in the extensors of the foot and ankle. Sensation to touch was also lost in the areas of pain. Hot-water bags applied to the limb blistered all of the areas over which he was anesthetic. The scars of these blisters are yet plainly seen. The blistered surface was extremely slow to heal. There was some swelling of the foot and some in the fibular region of the leg, most marked on the dorsum; considerable ecchymosis on the outer aspect of the leg from the tibiofibular articulation down to the ankle, particularly marked, however, near the attachment of the muscles on that side.

He was in the hospital four weeks, during which time the spasm of the hamstrings relaxed allowing extension of the leg. He slowly recovered the power to stand and walk with the aid of a cane.

Examination Nine Months After Injury.—He seems to be a healthy person in every way. Plan-

tar reflexes normal. The tendo-Achillis jerk on the left side is distinctly increased. On this side he has a typical drop-foot, total inability to flex the foot on the leg and extend the toes because of the complete paralysis and atrophy of the tibialis anticus, peroneii, extensor longus digitorum pedis and extensor propius hallucis. The left leg measures one and one-half inches less than its fellow.

The atrophy and areas of anesthesia are very nicely shown in these photographs which Dr. John Nuss kindly made for me. The area of anesthesia accurately corresponds to the cutaneous distribution of the musculocutaneous, anterior tibial and other cutaneous branches of the peroneal nerve. Reaction of degeneration was demonstrated in the peroneus longus and tibialis anticus. The opinion of several very careful

FIG. 1.

The flat surface of the left leg in the photograph is in marked contrast with the rounded fulness of its fellow. It also shows the dark lines along and between the toes separating the areas between the anesthesia in the distribution of the anterior tibial and the musculo-cutaneous from the normal areas supplied by the internal and external plantar nerves.

surgeons is that he did not suffer either a fracture or a dislocation.

If one will recall the anatomy of the parts, he will remember that just behind the knee, the external popliteal or peroneal nerve passes obliquely outward and downward on the inside of the tendon of the biceps; passes between the tendon of the biceps and head of the gastrocnemius muscle, winds around the head of the fibula, pierces the peroneus longus near its origin and divides beneath the latter muscle into the anterior tibial and musculocutaneous nerves.

It seems only reasonable to suppose that the sudden and powerful muscular action intended to prevent his falling resulted in a severe contusion of the nerve by the contraction of the peroneus longus, or, which is still more likely, the nerve was torn along with the muscle, the evidence of which latter injury appeared later in the extensive ecchymosis which took place, and which was most marked about the attachment of the peroneii.

Careful examination of the literature of injury and traumatic neuritis of the peroneal nerve reveals no case which possesses like origin, *i.e.*, muscular effort.

Fractures of the head of the tibia and fibula or dislocation of the latter are not infrequently responsible for quite a number of injuries of the peroneal nerve and its branches, as is attested by Perrin[1], Duplay[2], Callender[3], Terrier[4], Bowlby[5],

FIG. 2.

This side view shows the area of complete anesthesia on the leg which has sensibly narrowed from a point but little below the head of the fibula; showing that the injury took place above the origin of the lateral cutaneous branch of the peroneal nerve.

Verneuil[6], Berger[7], Smith[8], Szuman[9] and Watt[10]. Hogarth[11] has reported two cases due to direct blows received while playing football. In neither of his cases was there fracture or dislocation. It is not impossible that in one of his cases the injury was laceration of the nerve due to muscular effort, since he clearly states that there was separation of the muscular tissue.

In conclusion I can but echo the observation of Hogarth, that when we consider the exposed position of the peroneal nerve it is remarkable that it so infrequently suffers injury.

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MEDICAL PROGRESS.

Tuberculosis in Prisons.—While so many are interesting themselves and others in the State care for consumptives, it is strange that so little attention has been paid to State institutions already existing, such as prisons and reformatories, where no pretense is made to control the spread of this disease. S. A. KNOPF (*Med. Rec.*, March 2, 1901) shows what an important factor in the death-rate tuberculosis has become even in such institutions as the Sing Sing Penitentiary and the Elmira Reformatory. In spite of this fact, even ordinary precautions are seldom taken to isolate the disease. The prisoners mingle indiscriminately, no spit-cups or even spittoons are provided, as a rule, and a well person is frequently compelled to live in a small cell with a tuberculous prisoner. The sources of possible infection in such an institution are, of course, innumerable and it is astonishing that health boards have not taken more active steps toward preventing the dissemination of this scourge. To regard the disease as a blessing among the prisoners is not only most unjust to the unfortunates but also to the public, for many of the former will later be freed and prove a nuisance to their associates or perhaps become burdens to society on account of their invalidism.

Roentgen-Ray Treatment of Tuberculosis.—Following upon the success which has attended the use of the X-ray in cases of lupus, numerous efforts have been made to destroy the tubercle bacilli in other parts of the body, especially in the lung. J. RUDIS-JICINSKY (*N. Y. Med. Jour.*, March 2, 1901) prepared cultures of several species of bacteria, including diphtheria, tubercle bacilli, anthrax, etc., and found that the effect which the X-ray had depended largely upon the reaction of the culture medium. Those grown upon an alkaline medium seemed to thrive under the stimulus of the rays, but those in acid media were destroyed. Rabbits, inoculated with tubercle bacilli and whose secretions were rendered alkaline soon died of tuberculosis. Others inoculated from the acid media, having been in the first stage of tuberculosis, were then exposed to the intense irradiation daily and were in good condition at the end of two years. The same treatment has been used by the author in many early cases of pulmonary tuberculosis and in nearly every case marked improvement has taken place. Other methods of treatment have been combined with this, so that it is impossible to conclude that the cures were due solely to the X-ray exposures.

Formaldehyde in Suppurative Otitis Media.—In those cases of otorrhea which are susceptible of cure by syringing with an antiseptic solution, H. O. REIK (*Maryland Med. Jour.*, January, 1901) believes that formaldehyde will accomplish the good result with more certainty and in a much shorter time than any other antiseptic now employed. In thirty-one chronic otorrheas the greatest length of time required to bring about a cessation of the discharge by the use of formaldehyde was twenty-eight days, while the average time was nine days. Only four cases were not improved. In sixteen acute cases the average time required was five and one-half days. The evident advantages which formaldehyde has over boracic acid and bichloride are : (*a*) Its bactericidal power compares favorably with that of bichloride or any other agent; (*b*) it can be entrusted to any patient with safety; (*c*) it has great rapidity of action and also a stimulating effect upon the local tissues. As to the manner of using formaldehyde, Reik has found it most satisfactory to use one dram of the commercial solution of formaldehyde (40 per cent.) in one pint of boiled water, and to direct that the ear be syringed twice daily, using at least a pint of the mixture at each sitting. This is equivalent to a 1-300 solution of the formaldehyde gas. Stinging sensations usually follow its use, but the amount of discomfort is slight, and lasts only a few moments. In sensitive ears a weaker solution can be used.

Hemorrhage from Peritonsillar Abscess.—Severe hemorrhage from quinsy is rather rare, but, on account of its peculiarity in usually being secondary to ulceration, the following case of W. F. CHAPPELL (*N. Y. Med. Jour.*, March 2, 1901) is of interest. This patient presented an ordinary case of quinsy, the abscess pointing in the middle of the posterior pillar. A small longitudinal incision was made and the pus evacuated. Four days later, the patient had a severe pain in the throat and then lost about six ounces of blood. He had two similar hemorrhages during the next five days. A large incision was then made through the anterior pillar to the cavity, which was packed with iodoform gauze. There have been ten cases reported previously and all seem to indicate that the hemorrhage is due to the ulceration of the ascending pharyngeal or the internal carotid artery. The treatment should, therefore, be to incise the abscess early, maintain free drainage to avoid ulceration and, if the hemorrhage occurs, to adopt the method described or ligate the carotid artery.

Ureine.—At the International Medical Congress, W. A. Moor read an account of the Discovery of Ureine, the Principal Organic Constituent of Urine and the True Cause of Uremia. So satisfactory was his explanation of the methods of his work that A. F. CHACE and W. J. GIES (*Med. Rec.*, March 2, 1901) have endeavored to learn the truth of his statements, and have become thoroughly convinced that his conclusions were not founded upon scientific experimentation. They have found that it is not a chemical individual, but a mixture

containing several of the organic substances and a considerable proportion of inorganic salts ordinarily found in normal urine and that its toxicity can be referred to some of these normal constituents. Dr. Moor's method of preparing urine fails to eliminate potassium salts and many normal basic alkaloidal bodies which are known to possess very toxic properties.

Plague Antitoxin.—Immunity to a certain disease may be artificially conferred either by injecting into a person serum taken from a patient or an animal that has lately acquired the disease; or the person may be directly inoculated with the attenuated germs of the malady or their toxins, and thus develop a mild form of the disease, not fatal, but sufficient to stimulate the manufacture of the immunizing substance. C. B. STEWART (*Indian Med. Rec.*, Jan. 16, 1901) refers to the work which has been done to obtain a successful antitoxin for the plague. Yersin's serum is based upon the same principle as the diphtheria antitoxin, the horse being the animal in which the antitoxin is developed. This serum is curative and also used as a prophylactic agent, but the immunity conferred is very short—only about fifteen days. Haffkine has lately developed a method by which the person may be given the plague in a mild form and thus obtain an immunity of a much longer duration. A sterilized culture of the plague microbe in broth is used as a vaccine. The microbe is obtained fresh from a case of plague and incubated in flasks of broth at 70° to 80° F. After being tested and found pure the culture is sterilized by heating to 65° C. for one hour and a small quantity of carbolic acid is added. These dead microbes, with the broth which contains considerable toxic properties, are injected into the person in gradually increasing doses, until the antitoxin has been sufficiently developed to immunize the individual.

Tetanus Antitoxin.—In determining the value of antitoxin in tetanus, W. WILMS (*Münch. med. Woch.*, Feb. 5, 1901) says that the following two facts must not be lost sight of: (1) That the treatment is not begun later than thirty hours after the onset of the first symptoms; (2) that the amount used at once is not less than 100 units. In view of the fact that as many as 60 per cent. of cures have been recorded, the author investigated the records of the Leipzig hospitals to discover that the antitoxin proved a failure in nearly all cases. This leads him to conclude that in all previous statistics many chronic cases of tetanus have been included and that in these the results have been much more satisfactory. The conclusions of Behring to the effect that the mortality could be reduced by 15-20 per cent. could thus not be verified.

Plasmodium Malariæ.—Our present knowledge of the causative agents of malaria is summed up in an interesting article by B. GALLI-VALERIO (*Therap. Monatshft.*, Feb., 1900). After an account of the history of the plasmodia and the various forms found in the lower animals, he describes the human parasites as follows: The cause of tertian fever may occupy the entire red blood-cell, has rapid, ameboid movements and fine granulations and completes its cycle within forty-eight hours, forming twelve to twenty spores. That of quartan fever may also replace the entire red cell, but has slower movement and coarser pigment and a cycle of seventy-two hours' duration with a division into six to fourteen spores. The third form, the parasite of pernicious fever, occupies only one-fourth to one-fifth of the cell, is capable of very rapid movement, is ring-shaped when at rest, shows very fine, hardly-perceptible pigment and completes its cycle within forty-eight hours, chiefly in the internal organs. The inoculation of any one of these three forms will always cause a fever of the corresponding type. The fever coincides with the endoglobular phase in the development and may be due to a toxin, though this has not as yet been isolated. The development of the parasite outside the human body has been studied in the stomach and intestines of the mosquito. Twelve hours after this has taken up infected blood, the spermoid which has penetrated the female yields fertilized bodies which migrate between the epithelial cells after forty hours. Spindle-shaped forms develop in these, which, after bursting the limiting capsule, fall into the body-cavity and then, by means of the circulation, reach the salivary glands where they are stored up in large numbers. The most important transmitters of malaria are *Anopheles claviger*, *bifurcatus* and *superpictus*. Though a specific for the treatment of malaria exists, the tendency of the present day is to destroy these insects by the cultivation of certain fish and by the use of petroleum and aniline colors. But much can be done by protecting the windows of houses in infected regions with fine wire-netting.

Chloretone.—A. A. STEVENS (*N. Y. Med. Jour.*, Feb. 23, 1901) believes chloretone to be a valuable hypnotic in doses of ten to twenty grains, acting within a half to one hour, and seldom causing any ill effects either upon the stomach, the heart or general condition. It loses its power when used continuously, however, and in insomnia due to pain it is of little value. In mental excitement it is inferior to hyoscine and paraldehyde, and is not usually successful when the fever is above 102° to 103° F.

Convulsions in Scarlet Fever.—Nephritis is one of the most frequent severe complications following scarlet fever and is, no doubt, in most cases the cause of convulsions. H. E. HAYD (*Med. Rec.*, Feb. 23, 1901) reports such a

case in which three weeks after the scarlet fever began, with urine of a normal specific gravity and very little albumin and no casts, convulsions suddenly developed. Urea examinations should always be made in all suspected cases, as the specific gravity is not a reliable index. He believes that only the most digestible foods should be taken and, if possible, only milk, for gastric and intestinal fermentation alone may determine a convulsion if the kidneys are deficient in function. An abundance of water and nutrient enemata are preferable if there is much gastric irritability. To stimulate the kidneys, hypodermoclysis of two or three pints of decinormal salt solution is very valuable. The introduction into the bowels of a number of gallons of water ranging from tepid water to water at 80° F., if there is much fever, should be employed once or twice a day. Strychnine and digitalin are very valuable. Chloral and antipyrine, gr. v aa., by rectum and repeated when necessary, are very efficacious in assisting in the control of convulsions.

Treatment of Erysipelas.—N. G. KEIRLE, Jr. (*Phila. Med. Jour.*, Feb. 16, 1901) has had such success in the treatment of erysipelas by the following method that he no longer fears the disease. Of thirty cases, not a single one failed to yield to treatment in a few days, usually three or four. The affected area was first *enclosed* in a painted ring of tincture of iodine. The ring should be from two to three inches from the margin of the reddened area, and a sufficient number of coats should be applied to cause a slight desquamation of the upper layers of the skin. At the same time the whole of the surface enclosed in the ring should be covered with an ointment of ichthyol, about one dram to one or two ounces of vaseline. This should be covered with a piece of gauze and a hot stupe applied and changed every four hours. At the end of twelve hours the ointment should be washed off and a fresh coat applied, and, if the iodine has not had a sufficient effect, one or more coats should be applied. As is stated, three or four days of this treatment stopped the disease, the inflammation not crossing the painted ring.

Transmission of Infectious Diseases.—In the treatment of contagious disease the most important indication is to prevent its spread to other members of the family or community, and in order to successfully control epidemics, the means by which the disease is transmitted must be most thoroughly and scientifically sought out. The Health Department of New York City, so favorably situated, has undoubtedly taken the lead in such investigation and the results which A. H. DOTY (*Med. Rec.*, Feb. 23, 1901) publishes are both valuable and practicable. One of the points upon which he lays especial stress is that the clothing actually worn by a well person, even after thorough exposure to the contagion, is seldom the means of communication. He cites much evidence to prove this, mentioning how infrequently the general practitioner carries the infection from one patient to another. In the epidemics of typhus fever and smallpox (1892 and 1893) there were 714 cases of the former and 842 of the latter disease. There were about 75 health officers frequently coming in actual contact with these patients, but, although 14 contracted typhus fever and seven died, in no instance did these officers transmit the disease to their friends or relatives. The greatest source of danger probably exists in not recognizing the mild and ambulant cases of contagious disease which may unintentionally transmit to many a more virulent type of the same malady. Careful investigation will almost always reveal the fact that there has been direct actual exposure to some infected person. The value of the knowledge and appreciation of such facts is, of course, most apparent. Every case of even suspected contagious disease must be isolated and carefully watched, and all the clothing and effects sterilized, preferably by the use of steam. The latter can usually be done only when the health department has a special apparatus. On the other hand, the wanton destruction of property which has merely been exposed to the diseased, especially cargoes from infected ports, is undoubtedly useless and most detrimental to commerce.

Periodical Insanity.—A. R. DEFENDORF (*Phila. Med. Jour.*, Feb. 16, 1901) discusses the symptoms, the frequency of occurrence, the different forms, the causes, and the prognosis of periodical insanity, and cites two cases in detail, one of the maniacal and one of the depressive form. In conclusion he says (*a*) that periodical insanity is a mental disease characterized by a definite symptomatology, course and outcome; (*b*) it, in point of numbers, is one of the most prominent psychoses; (*c*) the symptoms are sufficiently characterized to permit a differentiation from other forms of mental disease in the first attack, (*d*) and allow the forecast of the whole course of the disease, *i.e.*, (*e*) recurrence of attacks throughout the life of the individual, mostly of the character of the first, (*f*) with lucid intervals of varying length from weeks to years, except in very small percentage of cases, (*g*) without a tendency to mental deterioration, except in cases in which the attacks have been long, frequent, and severe, and even then it is of a light grade.

Typhoid in South Africa.—In his report on the Military Hospitals, J. W. SMITH (*Med. Chron.*, Feb., 1901) says that the average of troops serving in South Africa during the year was 220,000, of whom one in fourteen was attacked by enteric fever and one in sixty died. Thus 7.11 per cent. acquired the disease and

the percentage mortality was 23.26. The number of cases therefore was over 15,000, but the death-rate corresponds very favorably with that of the London hospitals. Pneumonia and hemorrhages were rare complications, but perforation was present in about one-third of the fatal cases.

Gall-bladder in Typhoid.—The frequent occurrence of gall-bladder inflammation during or after an attack of typhoid has led to considerable effort to determine the relation between the two conditions. R. W. MARSDEN (*Med. Chron.*, Feb., 1901) has reported a case of typhoid with perforation of the gall-bladder, peritonitis and death due to ulcerations, in which the bacillus coli communis seemed to be the principal offender. The symptoms were characteristic, the Widal reaction was positive and a few small ulcerated Peyer's patches were found in the lower ileum. Typhoid bacilli were also present in the gall-bladder in moderate numbers, and he thinks are frequently the efficient cause of cholecystitis. The most important passage of these bacilli is probably through the blood, the liver, and the biliary ducts. On account of the frequency of typhoid infections of the gall-bladder, Chiari has suggested that the pouring of the bacilli with the bile into the bowel may give rise to a relapse, thus accounting for the possibility of a reinfection and relapse being due to the stimulating action of solid food upon the flow of bile.

Dilution of Milk for Infants.—In substituting cow's milk for woman's milk the chief source of trouble is usually the presence of a large percentage of proteids which are difficult to digest. A great difference of opinion exists as to whether the cow's milk should be diluted simply with water or with a cereal gruel. H. D. CHAPIN (*N. Y. Med. Jour.*, Feb. 23, 1901) claims that, no matter how much the milk is diluted, the casein of cow's milk forms hard, leathery curds when water alone is used; but, when a digested or dextrinized wheat-flour gruel is employed, the curds are soft and will easily pass through a small-meshed sieve. To prepare this gruel two tablespoonfuls of wheat or barley-flour are beaten to a thin, smooth paste with cold water. A quart of boiling water is added and the gruel is boiled for about fifteen minutes. A preparation of diastase is then added, made by soaking malted barley grains in water. The gruel is stirred until it becomes thin and watery. When this diluent is added to cow's milk the formation of large curds is practically impossible, and the digested starch which it contains is one of the forms of nutriment that are known to be rapidly absorbed and to promote the secretion of the digestive juices.

Acute Leucemia.—A peculiar case of the rare disease, acute leucemia, is described by A. DENNIG (*Münch. med. Woch.*, Jan. 22, 1901). The patient came to the hospital with the symptoms of an advanced chlorosis and was treated for some time with Blaud's pill. Since she did not improve, a more careful examination was made of the blood, with the result that a steadily-diminishing number of red and a gradually-increasing number of white cells were found, together with the elements peculiar to acute leucemia. One hour before death, the relation of white to red cells was as one to two, the lymphocytes predominating. Characteristic symptoms, such as hemorrhage into the skin and from the mucous membranes and enlarged spleen and lymph-nodes, appeared only late or not at all. The bone-marrow on autopsy showed no macroscopic evidence of disease, in which respects the case differed from all others previously described. It was only the microscopic examination of the blood and the marrow, together with the rapid decline of the patient which gave a clue as to the true nature of the disease.

Strabismus.—After reviewing the various causes of heterotropia, J. H. WOODWARD (*Med. Rec.*, Feb. 16, 1901) urges that in a case of paralytic strabismus a thorough determination of the cause and extent of the lesion should be made by a competent person in order that immediate treatment may secure the improvement which is sometimes possible, syphilis and rheumatism being the most frequent amenable causes. Advancement of the paralyzed muscle may be considered in incurable cases. In non-paralytic strabismus the proper correction of the errors of refraction is the first indication, but only in a small percentage of cases glasses alone are sufficient. Operation is usually necessary, but it must be carefully and fully ascertained which is the offending muscle and whether it is overacting, contractured, overstretched or enfeebled. The one should be weakened by tenotomy, the other strengthened by the advancement of its insertion. Treatment of heterotropia should begin as soon as a child is old enough to wear glasses, and operations need not be postponed until the sixth or seventh year. A persistence of twenty years or more does not, however, contra-indicate interference.

Pathology of Blood-producing Organs.—C. S. ENGEL (*Münch. med. Woch.*, Jan. 22, 1901) asks whether constant relations exist between the condition of the blood and that of the bone-marrow in conditions in which these are pathologically altered. While normally the blood contains only one type of erythrocyte, two are found in the healthy bone-marrow, one resembling the normal red cell and called orthochromatic, and the other, polychromatic, with paler protoplasm. In diseased conditions the proportion of both varies considerably, as does also the relative amount of the various leucocytes, not however within definite lines which would allow a clue as to

the nature of the disease to be formed. The author has, however, found the following four conditions to be fairly constant: (1) Normal marrow, where the epiphyses contain red marrow, the diaphyses, fat. In the former both ortho- and polychromatic normoblasts are found. The blood only contains orthochromatic erythrocytes. (2) Insufficient marrow. Here the size and shape of the red cells are normal, but they are frequently much increased in number. The following changes may be found in the blood: (*a*) a normal number of red cells with diminished hemoglobin; (*b*) a diminished number of red with normal or diminished hemoglobin; (*c*) the presence of pathological cells, such as ortho- or polychromatic normoblasts or polychromatic erythrocytes; (3) metaplastic marrow, where the yellow marrow is partially or entirely red, and where megaloblasts and metrocytes, the latter a large orthochromatic cell with relatively small nucleus, are found. In the blood there are often megaloblasts and regularly macrocytes. (4) Aplastic marrow, a rare condition in which the red marrow is converted into fat and ceases to be hematopoietic. The blood contains no pathological cells, but red cells, and granular leucocytes are diminished without being replaced.

Failure of Cardiac Compensation.—In forming a proper estimate of the strength of cardiac action too much attention is usually paid, no doubt, to the valvular lesions as evidenced by the various murmurs and not enough thought laid upon the condition of the muscular walls. Pathologists have recently investigated more thoroughly the myocardial changes and, although their opinions still differ considerably, it is safe to say that a heart which has organic valvular disease no longer possesses a normal myocardium, since the latter has been involved in its parenchyma or interstitial tissue, or both, in various foci. Hypertrophy compensates for a time, but parenchymatous changes finally result in such weakening of the heart-walls that the reserve strength is lessened and an extra strain disturbs the equilibrium. M. MANGES (*Med. Rec.*, Feb. 16, 1901) enumerates the causes of failure of compensation as follows: (1) Diminished general nutrition; (2) disturbance of local nutrition of the heart; (3) increased work of the heart; (4) functional cardiac disorder; (5) effects of improper treatment. Under the first heading may be classed not only those acute infectious cases and the many chronic systemic disorders, but also those ill-advised people who undergo reduction cures at Carlsbad and other resorts and thus frequently sacrifice cardiac compensation. Local nutrition is controlled by the coronary arteries and an arteriosclerosis situated here can be surmised only when part of a general arterial affection. Muscular overstrain, prolonged and violent athletic exercises frequently cause irreparable harm. As Schroetter suggests, people should exercise with their brains, as well as with their muscles. Purely functional disorders, mental excitement or emotion, may be of such serious import that the term "died from a broken heart" may be justly applied. Lastly the presence of a murmur does not mean that digitalis is needed, as so many physicians seem to believe. It is usually much better to avoid cardiac drugs unless their indication is clearly observed.

Liverpool School of Tropical Medicine Report on Yellow Fever.—An abstract of the interim report by H. E. Durham and the late W. Myers (*Brit. Med. Jour.*, Feb. 23, 1901) contains the following conclusions: (1) Sufficient search reveals the presence of a fine small bacillus in the organs of all fatal cases of yellow fever. We have found it in each of the fourteen cadavers examined for the purpose. In diameter the bacillus somewhat recalls that of the influenza bacillus; seen in the tissues it is about 4 micra in length. (2) This bacillus has been found in kidney, in spleen, in mesenteric portal and axillary lymphatic glands, etc., taken from yellow-fever cadavers directly after death. In the contents of the lower intestine apparently the same bacillus is found often in extraordinary preponderance over other micro-organisms. Preparations of the pieces of "mucus," which are usually, if not always, present in yellow-fever stools, at times may almost present the appearance of "pure culture." (3) Preparations of the organs usually fail to show the presence of any other bacteria, whose absence is confirmed by the usual sterility of cultivation experiments. (4) It is probable that this same bacillus has been met with but not recognized by three other observers. Dr. Sternberg has mentioned it; and it has also recorded the finding of similar organisms in material derived from Drs. Domingos Freire and Carmona y Valle; but he did not recognize its presence frequently, probably on account of the employment of insufficiently stringent staining technic. (5) The most successful staining reagent is carbolic-fuchsin solution (Ziehl), diluted with 5-per-cent. phenol solution (to prevent accidental contamination during the long staining period) immersion for several hours, followed by differentiation in weak acetic acid. Two hours' staining period may fail to reveal bacilli, which appear after twelve to eighteen hours. The bacilli in the stools are often of greater length than those in the tissues, and they may stain rather more easily; naturally the same is true of cultures. To facilitate matters at our last two necropsies a method of sedimentation has been adopted. (6) Pure growths of these bacilli are not obtained in ordinary aerobic and anaerobic culture tubes. (7) Some pure cultures have been obtained

by placing whole mesenteric glands (cut out by means of the thermocautery) into broth under strict hydrogen atmosphere. Investigations into the necessary constitution of culture media for successful cultivation are in progress. (8) Much search was made for parasites of the nature of protozoa. We conclude that yellow fever is not due to this class of parasite. Our examinations were made on very fresh organ juices, blood, etc., taken at various stages of the disease, with and without centrifugalization, and on specimens fixed and stained in appropriate ways. We may add that we have sometimes examined the organs in a fresh state under the miscroscope within half an hour after death. (9) The endeavor to prove a man-to-man transference of yellow fever by means of a particular kind of gnat by the recent American Commission is hardly intelligible for bacillary disease. (10) We think that the evidence in favor of the etiological importance of the fine small bacillus is stronger than any that has yet been adduced for any other pretended "yellow-fever germ." At the same time there is a much further work to be done ere its final establishment can be claimed. The acquisition of a new intestinal bacterium would explain the immunity of the "acclimatized."

THERAPEUTIC HINTS.

Nocturnal Incontinence.—BOMMIER classes his patients as follows: (1) Those who dream; (2) the apathetic, sleepy, and idle; (3) the ill-developed. The first class of patients have polyuria, are nervous, urinate frequently in the day time and at night dream that they are to urinate. Such require tonics, warm baths or douches, gradually made colder, and belladonna, antipyrin, gm. 1.0-4.0 (gr. xv-3i), chloral, gm. 0-30-1.0 (gr. v-xv), potassium bromide, gm. 1.0 (gr. xv), or extract of hyoscyamus, gm. 0.03 (gr. ½), are recommended. In the second class there is atony or atrophy of the sphincter, and there may be leakage during the day. Such patents sleep profoundly, so that the muscles become much relaxed. They need to make sleep less deep by small amounts of tea or coffee, to reduce the fluids taken at the evening meal, to be awakened at a fixed hour, best between midnight and one o'clock, and to be occasionally punished. Strychnine or fluid extract of rhus aromatica, gtt. v-xx, may be administered, though the latter's action is not yet well known. Faradism may be of use. The third class includes boys with phimosis, non-descent of testicle, congenital hernia, preputial adhesions and atresia of the meatus, and girls with adhesions of the clitoris, or between bladder and uterus so that the vesico-urethral orifice is drawn open, or with anal fissures, etc. In these patients, try to remove the cause, for medicine is of little or no use.

Silver Nitrate in Dermatology.—After trial of many of the recently introduced chemicals in eczema, J. C. DUNN (*Penn. Med. Jour.*, Jan., 1901) has returned to silver nitrate, using it in from one-per-cent. solution in acute forms, to the solid stick in old and thickened patches. In psoriasis, erythema, acne, especially the pustular form with marked erythema or inflammation, herpes zoster, the various tineæ, contagious impetigo, and lichen planus; it is at least as effective as chrysarobin or salicylic acid, and is often better borne. It is sedative, astringent, antipruritic and seems to have an alteratve effect on the nutrition of the skin.

Nasal Neurosis.—One sees women having frequent attacks of sneezing both summer and winter, a thin watery discharge, and a tendency to obstruction of a nostril, sometimes one side sometimes the other. On examination there is no hypertrophy, no permanent obstruction, but simply a turgescence of the membrane over the turbinate. Such are treated by SAMUEL B. DABNEY (*Pediatrics*, Feb. 15, 1901) with

℞ Ac. arsenosi.....gm. 0.06 (gr. 1)
Strych. sulph.....0.04 (gr. ⅔)
Ext. bellad. .....
Zinc. phosphid., aa.....0.25 (gr. iv)
Ext. gentian., q. s.....ad pil. No. XX.

One three times a day, and the local application of menthol.

Phototherapy.—LEREDDE has used the light from an arc-lamp in parasitic and other skin-diseases. The chemical rays kill bacteria and stimulate the cells of the skin, and are applied by condensing lenses for an hour or more twice a week. Occasionally erythema and pigmentation result. The diseases treated with success are lupus, acne vulgaris, acne rosacea, rhinophyma, alopecia areata, some cases of epithelioma, and sycosis.—*Bulletin général de Thérapeutique.*

Gonorrhea in the Female.—ALFRED ROULET (*Ann. Gynec. and Ped.*, Feb., 1901) cleanses the vulva with bichloride solution, 1-10,000, or boric acid, 4 per cent.; keeps patient in bed, and gives potassium citrate, gm. 0.7 (gr. x), every two hours. A solution of protargol, gm. 0.06-0.7 to 4.0 (gr. i-x to 3i), is applied to the urethra, and a 2-per cent. solution swabbed or sprayed over the vaginal walls. At bedtime the following suppository is used if necessary:

℞ Protargol..... .....
Europhen, aa., gm. 0.7 (gr. x).
Ol. theobrom., q. s., ad. suppos. No. X.

Neuralgic Dysmenorrhea.—To treat gout rheumatism, malaria, anemia, or other constitutional dyscrasia, apply a capsicum or mustard plaster over the painful area, and do not give morphine, says E. C. UNDERWOOD.—*Annals of Gynecology and Pediatry.*

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SATURDAY, MARCH 9, 1901.

RECENT OBSERVATIONS ON DIPHTHERIA.

THE clinical features of diphtheria have been so considerably modified within the last few years by the use of antitoxin that the classical description of Bretonneau must, indeed, sound a strange note to those whose experience with this disease dates back hardly more than five or six years. Any recent careful study of this curse that struck terror to the hearts of our fathers must then be not only of special, but general interest. An extremely interesting paper just published by Dr. Fred Grant Burrows (*American Journal of Medical Science*, February, 1901) summarizes the results of the writer's experience with 2,093 cases of diphtheria treated at the Boston City Hospital from August, 1899, to a corresponding period in the following year.

From being the most fatal of the acute infectious diseases, with a death-rate of from 30 to 50 per cent., its mortality has so greatly decreased that it is scarcely a more important factor in the total death-rate of Boston than typhoid fever. The last and Twenty-Seventh Annual Report of the Board of Health of that city shows a mortality of 9.7 per cent. Of the 2,093 cases treated, 131 proved to have a mixed infection and 1,962 were uncomplicated. Among the latter 240 died, giving a mortality-rate of 12.23 per cent.; but of those that died 69 were moribund when admitted and died within twenty-four hours of admission.

The majority of those admitted were females, but no noteworthy difference in the death-rate of the sexes was observed. Most of the patients were under fifteen years of age. For these the death-rate was 14 per cent.; and for those above that date it was only 2.85 per cent. An examination of the tables given by Dr. Burrows shows a decreasing death-rate from infancy to adult life.

A study of the membrane distribution shows that, although quite variable, both tonsils were generally the seat of election; occasionally the uvula, posterior pharyngeal wall, palate, lips, tongue, epiglottis, cheek, external auditory canal, eye, labiæ majoriæ and minoræ, nostrils and skin, were affected, sometimes alone or associated with membrane-formation elsewhere. It is important to point out in this connection that the diphtheritic membrane merely represents in a general way the amount of local reaction wherever it may be situated; but its amount or distribution bears no definite relation to the quantity of poison absorbed and the consequent existing toxemia—often enough severe and even fatal cases of diphtheria are seen without any membrane whatsoever. It is therefore, as Dr. Burrows says, but one of the guides in the administration of the antitoxin.

There is one extremely important point worthy of mention in connection with the bacteriological diagnosis of the disease. The observation is, however, by no means new, being perfectly well known to students of diphtheria. Some of the worst cases, studied by the writer, with thick and extensive false membrane, persistently gave negative cultures until the membrane began to disappear, when it became possible to take cultures from the mucous membrane of the throat, and many diphtheria bacilli would be demonstrated. With regard to the bacteriological diagnosis, experience has shown it invaluable and necessary, but, as is properly stated in this paper, it is often impossible to wait for bacteriological confirmation. In such cases the clinical picture should be the basis of judgment and, at all events, when in doubt experience has shown that it is far safer to administer the antitoxin and otherwise treat as a case of diphtheria.

Over one-half of the cases showed evidence of cardiac disturbance at some time during the course of the disease; usually it proved slight

and transitory. Murmurs were not uncommon. Irregularity of heart-action was also frequent and, as noted by others, most conspicuous in those cases in which there has been nasal diphtheria. Rotch more than ten years ago explained this by pointing out the extremely abundant supply of lymphatics to the nasopharynx.

A little over twenty-eight per cent. of the cases in which the urine was examined showed albumin, in no instance above one-fourth of one per cent. Nephritis was uncommon.

In this series of 1,962 cases, 337 had laryngeal stenosis; of this number, 213 were intubated and 124 were relieved by the antitoxin without intubation. In the laryngeal cases the death-rate was 31.4 per cent. The early cases without operation showed a mortality of only 8 per cent., whereas in the operative (and late) cases it jumped up to 45 per cent. Dr. Burrows strongly advocates the abandonment of primary tracheotomy in the treatment of simple diphtheritic laryngeal stenosis; in this he is supported by McCollum of Boston and others. Among the complications observed were middle-ear disease (3 per cent.), palatal, oculomotor, and deltoid paralyses, and hemiplegia in one instance. The patellar reflexes were often found diminished. On the whole, the nervous complications were fewer than before the administration of antitoxin. Of the cases that died 71.6 per cent. succumbed in the acute stage of the disease; the others died in the secondary stage, or later of some other and complicating condition.

As already shown, the amount and distribution of the membrane cannot be taken as an index upon which to base the administration of antitoxin; in this the experience of others was again conclusively demonstrated by the experience at the Boston City Hospital. At the hospital 4,000 unit-doses are given and repeated every four hours as long as may be necessary; in a few very severe cases this amount was even exceeded. The earlier the administration of the antitoxin, the better the results.

PRIVATE SANATORIA FOR CONSUMPTIVES.

THE power of an idea is stronger than any power of legislature. It would be impossible to legislate consumption out of existence, for the reason that there are too many consumptives for the State to take care of. Therefore there is the greatest need for individualized effort on behalf of charitable and philanthropic people for the suppression of the disease. The effort that various societies are making to protect the members of their own community from spreading the disease is one of the best expressions of the sentiment of common sense and practical hygiene of the age. In Dr. Knopf's article published in this week's issue of the MEDICAL NEWS, the situation is plainly set forth. It is the incipient cases that must be treated by rest and fresh air, and it is the personal friends of the poor, the workers in clubs, settlements and tenement neighborhoods, who must report the cases, get them out of their environment, and save their lives and protect their families from infection. By the increase of societies for the establishment of sanatoria for tuberculosis patients among the poor the end may be slowly accomplished, and the crowded quarters of large cities will gradually be cleansed of this, the world's plague. Nothing, however, but sentiment arousing citizens to a sense of their personal danger and personal responsibility will do this. Therefore, we look with the warmest approbation upon such societies as that of the Stony Wolde Sanatorium; and upon every effort to bring the social aspects of the disease before Society.

EXTIRPATION OF THE HYPOPHYSIS CEREBRI.

IN recent years the attention given to the functions of the thyroid gland, physiologically, caused at the same time, both on account of its peculiar anatomical situation, of the seeming impossibility of operation upon it, and also of its mysterious functions, an intense interest to be taken in the hypophysis cerebri.

It has been observed that stimulation of the hypophysis produced changes in the blood-pressure and the conclusion was drawn that this gland produced a secretion which affected the distribution of the blood through the brain. Observers obtained an extract of the gland which upon intravenous injection regularly caused changes in blood-pressure. Mairet and Bosc are said to have produced an increase in the number of epileptic attacks in affected persons by means of this extract. Some of the extravagant ideas relating to the hypophysis have been sceptically received and in order to verify what there is of truth in them F. F. Friedmann and Otto Maas describe the operation of extirpation undertaken by them on animals in the *Berliner klinische Wochenschrift* (Dec. 24, 1900).

Previous operations had always resulted in the

quick death of the animal, and this was attributed to the fact of the part necessary to life played by this gland. The authors describe their operation as follows. The animal (in all their cases cats were used) is anesthetized with ether, the extremities and head immovably fixed. The jaws are opened as wide as possible and the lower mandible bound in this position. Then the tongue is pulled out as far as possible and kept in position by means of a clamp, leaving the hard and soft palate. After clearing the mucous membranes, an incision is made exactly in the median line of the middle third of the soft palate. The edges of the cut are well retracted and the wound sponged free of blood. This enables one to perceive the base of the skull at the body of the sphenoid bone. A second incision into the bone exactly in the median line and retraction of the periosteum and mucous membrane lay the bone itself open to view. In the center of this cut a small bleeding cavity is exposed which is enlarged by means of a spiral bore, which finally penetrates the bone absolutely in the median line. This opening is gradually enlarged, small pieces of bone being carefully nipped from the posterior border. The porous bone on either side is gently crowded back by means of a bone chisel and the slight crushing which ensues is sufficient to allay the venous hemorrhage which has been taking place up to this time from these porosities. Sufficient clearing having been accomplished, the hypophysis covered by dura is seen, a grayish white mass lying directly at the opening. The dura is incised in the exact median line and the incision must be superficial or else hemorrhage from the pia will result. A blunt sound is introduced into the dura incision and the membranes surrounding the hypophysis gradually separated thereby from the mass itself. Finally, and with great care the separation of the hypophysis from the base of the brain is carried out in the same way and the hypophysis is lifted out with a fine forceps. The cerebrospinal fluid which, mixed with blood, slightly oozes out must not be removed as its presence hastens the clot-formation. The incision in the soft palate is then closed with four or five silk sutures. The great danger in the operation is that the cavernous sinus may be injured by any incision not made exactly in the median line—a *faux pas* succeeded by inevitable death.

In eighteen cases the authors were successful in their operation. The animals were killed three or four months afterward, but a few died earlier from septic infection and hemorrhage. In one animal, in which the entire gland was removed, the result was perfect. The animal regained full health and strength and was in full possession of all its faculties. In neither the cases of total extirpation nor in those of partial extirpation was a gain or loss of weight characteristic. These few facts enable us, however, to declare emphatically that the hypophysis cerebri is not a vital organ. If it possesses any important functions at all, these latter must be carried on by other organs after extirpation of the hypophysis. Postmortem examination revealed no change in any other organ which could be held responsible for the loss of the hypophysis. The examination of the urine of the animals operated upon gave no trace of albumin. Glucose was present, however, in all of the cases. Those that lived sufficiently long after the operation nevertheless gave a constantly-decreasing sugar reaction until, finally, no trace could be found. The glucose was probably the result of the ether narcosis.

Finally, it may be remarked that this operative procedure might be serviceable in human beings, not only for the rare hypophyseal tumors supposedly related to acromegaly, but also for inflammations and other pathological conditions situated at the base of the brain. Drainage of the exudate in tuberculous meningitis is a case in point. The authors operated on cadavers of children and certify as to the practicability of such operations.

ON THE ETIOLOGY OF YELLOW FEVER.

THE Liverpool School of Tropical Medicine has been investigating the subject of yellow fever and through its officers Drs. Herbert E. Durham and (the late) Walter Myers there is presented (*British Med. Journ.*, Feb. 23, 1901) an abstract of their investigations. It is noted in passing that both investigators contracted the disease and in one of them, Dr. Myers, it proved fatal.

Among the most interesting of their findings was a fine, small bacillus found in all cases of yellow fever, which bacillus does not agree with any other which has been described as an etiological factor. They mention that Sternberg had seen it, but did not recognize its universal presence. Thus far the investigators have not been able to isolate and grow this organism either under aerobic or anaerobic

conditions. They were unable to find any protozoon in any of the cases, although special search was made with this idea in view and the conclusion is reached that this class of parasite probably has nothing to do with yellow fever.

In view of the recent experiments of Drs. Reed and Carroll, the opinion of the workers of the Tropical School relative to the mosquito theory is of interest. According to them, the transference of a bacillary disease solely by means of insect parasites is an assumption difficult to understand. Moreover, their own experiments do not seem to bear out the American investigators and they further maintain that certain endemiological conditions are not satisfied by such an assumption.

That yellow fever may be conveyed by the mosquito is readily understandable, but even with the evidence, so well set forth at the Pan-American Congress, with the workers of the Liverpool Tropical School we are not yet prepared to accept the conclusions reached by the American investigators.

THE CAUSE OF SMALLPOX.

THE history of the search for the etiological factor of smallpox is one of much interest because of the extreme elusiveness of the agent in question. Bacteriologists have seemed to have come to the opinion that a bacterium is not the cause of the disease, or, if it is, it is one too small for the present powers of the microscope and as yet uncultivable.

Within recent years investigators have scanned the zoological field, and Dantzig in 1868 first described a corpuscle, which Renaut of Lyons and Van der Loeff of Amsterdam, in 1881 and 1886 respectively, held was probably a protozoon. More precise ideas were given by L. Pfeiffer in 1887-1891 in his studies on "Die Protozoon als Krankheits Erreger."

One of the latest studies is that of M. Funck of the University of Brussels (*Brit. Med. Jour.*, Feb. 23, 1901). He describes, in a preliminary note, a protozoon, occurring in three different forms which, he maintains, are the true agents in the causation of smallpox. He has named it the *Sporidium vaccinale* and credits Pfeiffer as the first to accurately describe it.

As yet the presentation of the author's studies is too incomplete to hazard an opinion of the merits of the work. We here append his conclusions without comment: (1) Vaccinia is not a microbic disease. (2) It is caused by a protozoon easily found in all vaccine pustules and in all active vaccine. (3) The inoculation of this protozoon in a sterile emulsion reproduces in susceptible animals all the classical symptoms of vaccinia. (4) This inoculation renders the animals refractory to subsequent inoculation with vaccine. (5) The variolous pustules contains a protozoon morphologically similar to that in the vaccine. (6) It follows that variola and vaccinia are two identical affections, that vaccine is nothing more than an attenuated form of variola, and that consequently the immunity to smallpox which vaccination confers does not form an exception to the general laws of specific immunity.

ECHOES AND NEWS.

NEW YORK.

Mount Sinai Hospital.—Examinations for vacancies in the house staff of this hospital will be filled by competitive examinations to be held at the hospital on March 28, 29, 1901. Graduates or those students graduating before July 1, 1901, are eligible. Applications in writing should be made to Dr. J. Rudisch, Mt. Sinai Hospital, New York.

Stony Wolde Sanatorium.—The Stony Wolde Sanatorium Building Committee met with persons interested in their philanthropic work at the residence of Mrs. Robert Maclay Bull, No. 40 East Fortieth street, last Tuesday afternoon at 3 o'clock. Short addresses were made by the Rev. Dr. William S. Rainsford, Dr. Edward G. Janeway, and Miss Wilkie, of St. George's Deaconess House .

Clairvoyance, But Not for Money.—The Assembly Public Health Committee has once more amended the Bell Anti-Christian Science bill reported it for reprinting. The bill has now been drafted so that it will not affect gymnasium instructors and will provide that Christian Science, clairvoyance, spiritualism and other cures may be practised gratuitously, but where they are utilized for gain they will be deemed to be a violation of the Penal Code. In this shape it is expected that the committee will report the bill favorably.

New York Academy of Medicine.—At the meeting of the Section on Surgery Monday evening, March 11th, Dr. Fred Whiting will read a paper on the Indications for the Ligation of the Jugular Vein in Sinus Thrombosis; with Illustrative Cases.

The Section on Otology will meet Wednesday evening, March 13th, and the following papers will be read: Tinnitus Aurium; Some

Remarks on its Causation and Treatment, by Dr. Thos. J. Harris; Tympanic Vertigo, due to Obstruction in the Eustachian Tube, by Dr. Wm. P. Brandagee.

At the meeting of the Section on Pediatrics on Thursday, March 14th, papers will be read by Drs. Finley Bell, Martha Wollstein and John Lovett Morse of Boston, on the general subject of Typhoid Fever. Dr. Morse will speak on the Value of the Widal Reaction.

The Section on Orthopedic Surgery will hold its stated meeting Friday, March 15th. Patients, instruments, etc., will be presented by Drs. A. B. Judson, Henry Ling Taylor, W. R. Townsend, Homer Gibney, George R. Elliott and S. A. Twinch.

The following have been recommended for resident fellowship: Drs. William Seaman Bainbridge, Edwin Holmes, Lester Mead Hubby, Samuel Murtland, Louise G. Rabinovitch and Arnold Sturmdorf.

PHILADELPHIA.

Presbyterian Hospital.—The Board of Trustees has created a Department of Laryngology and Rhinology and placed Dr. A. B. Cleveland in charge.

Pennsylvania Hospital.—This time-honored institution will, early in June, reach the one-hundred-and-fiftieth anniversary of its founding. A committee consisting of two members of the Board of Managers, the Superintendent of the Insane Department, and the President of the Medical Staff, has been appointed to make arrangements for a fitting celebration of the event.

Death From Overdose of Potassium Chlorate.—Mrs. Mary C. Knauff, twenty-five years of age, died last week apparently from the effects of potassium chlorate taken to relieve a sore throat. One ounce of the drug was taken the first day and half an ounce the following day. Alarming symptoms afterward developed, and despite the efforts of the physician who was called, the woman died. Post-mortem examination was not obtained.

Dr. Osler Visits Philadelphia.—Dr. William Osler, of Johns Hopkins University, addressed the students of Jefferson Medical College Monday evening, March 4, on the philosophy of the "Power of Sympathy." The discovery of the old chemist was alluded to and then reference was made to the power of suggestion in modern medicine. Following the address Dr. Osler was the guest of honor at the annual banquet of the Hare Medical Society.

Smallpox at State Capital.—New cases of smallpox are developing at Harrisburg and the Sanitary Committee of Councils has ordered the vaccination of all persons not thus protected. The condition of affairs is an interesting one at this time, when antivaccinationists are making vigorous efforts to secure the repeal of the compulsory vaccination law. A memorial urging this action has been signed by thirty-six physicians of this city and Chester, who express the opinion that the theories upon which the law is based are antiquated. They are opposed to compulsory vaccination on account of its proven inability to protect and as "an unwarranted outrage on the personal rights of the individual guaranteed by the Constitution."

Primary Carcinoma of Appendix.—Drs. R. H. Harte and R. N. Wilson, Jr., report this case from the Pennsylvania Hospital. The patient was a woman of twenty-four years who had at intervals appendicular symptoms and also pain in the right lumbar region. The appendix presented no tumor, but its lumen was obliterated and a carcinoma one-half centimeter in extent was situated near the middle of the organ. The condition is believed to have been impossible of diagnosis before operation. Dr. Wilson believes that the seriousness of the prognosis in these cases has been exaggerated. If it is as unfavorable as is generally supposed, the propriety of at once removing every appendix when symptoms present is to be considered.

Home Treatment of Tuberculosis.—Dr. Lawrence F. Flick presented an admirable paper on the above subject at a recent meeting of the County Medical Society. The three ends to be attained are the restoration of the physiological functions of the body, hypernutrition, and the conferring of immunity. General practitioners should be more alert in making the diagnosis, an important early symptom being indigestion, persistence of which should lead to physical examination of the lungs. When the diagnosis is made three things are to be done. First, acquaint the patient with his exact condition, as this may be necessary to secure his coöperation in the treatment; second, explain to him that successful treatment means a long and persistent struggle, lasting perhaps from three to five years. Patients are often not cured when they seem to be and treatment should be kept up after symptoms subside; third, lay down a routine for governing the patient's life as to food, exercise, clothing, etc. These patients can often take large quantities of food, three to six quarts of milk and six to twelve raw eggs daily. Regarding medication, antidiaphoretics and opium are avoided. The iodine compounds are first in value. Next is creosote which is given in hot water before meals in doses reaching 50 drops three times a day. Strychinine, arsenic, phosphorus, digitalis, and iron are of value. Use any drug that will help any organ. One of the greatest difficulties in the treatment is the occurrence of complications, as colds, influenza, or pneumonia, either of which may cause a recrudescence. In event of their occurrence absolute

rest in bed for several weeks must be insisted upon. The results of six years' work by Dr. Flick shows 18 per cent. of cures, with varying degrees of improvement in 55 per cent.

CHICAGO.

Appointment of Dr. Stanton.—Dr. S. C. Stanton has received the appointment of Contract Surgeon in the United States Army, to be stationed in Chicago. He has been doing work in connection with the Government's recruiting station here for some time.

Chicago Laryngological and Climatological Society.—At a meeting, held February 28th, the following officers were elected: *President,* Dr. Wm. E. Casselberry; *Secretary and Treasurer,* Dr. John E. Rhodes; *Council,* Dr. Wm. L. Ballenger, Dr. Otto Stein, and Dr. Melville T. Hardie.

Ravages of Venereal Diseases.—This subject was discussed at the regular monthly meeting of the Physicians' Club of Chicago, held February 25th.

Circumcision in Restricting the Spread of Syphilis.—Dr. Harold N. Moyer spoke on this subject. In view of the doubtful efficacy of registration and examination, the speaker earnestly invited attention to an operation which is simple, devoid of mortality or disfigurement, against which nothing can be said, and which has as a result, if universally applied, a lessening of the most disastrous of venereal diseases from 50 to 75 per cent., namely, circumcision.

Diminution by Education.—Dr. Edmund Andrews said that in educating the public the medical profession can sometimes work through other professions. Physicians can do a great deal of good through the clergy. The clergy have a powerful influence in every community, so that in educating the public as to these diseases and their ravages, it is important to secure their coöperation. Morality and sanitary science are natural allies and ought to march forward hand in hand.

Special Hospitals.—Dr. Joseph Zeisler regretted that there is not a hospital in Chicago for the treatment of venereal diseases. Vienna has a hospital in which there are six hundred beds for the management and treatment of venereal affections. The educational value of such hospitals, aside from the treatment and care of patients, would be immense to physicians. Students would have the advantage of seeing a large amount of material and of receiving from eminent men instruction in regard to venereal diseases.

Can Venereal Diseases Be Lessened?—This phase of the subject was discussed by Dr. J. Clarence Webster. He said there was no more important factor in producing disease, misery and distress in women than the gonococcus. The rank and file of the profession look upon gonorrhea in women as did our forefathers. A chronic gonorrhea may be apparently cured, but there may remain a latent condition. In females the gonococcus acts only on the urethral mucosa primarily and on the cervical mucosa. It rarely attacks the vagina or the vulva. In young children a typical gonorrheal vaginitis or vulvitis may be observed. The ordinary routine treatment of gonorrhea in the female by douches, etc., is responsible for an enormous amount of inflammatory mischief occurring elsewhere.

Legislative Control.—Judge Lorin C. Collins feels that something should be done toward legislative enactment for the control of these diseases, and he believes a move on the Legislature of the State, with such a body as the medical profession back of it, would be a great educational force which would lead to the dissemination of information on these subjects and eventually bring about some good. But any measures, however, for the control of these diseases would have to be handled in a careful, conservative way in order to meet with the approval of State legislators. Dr. L. Blake Baldwin said that a small hospital had been established for the treatment of venereal diseases in Chicago, and that a public-spirited citizen had already contributed $3,000 toward it. There are at present forty patients in the institution suffering from either gonorrhea or syphilis, or both.

Menace in Dowie Faith.—A man by the name of Carstensen fell down the basement stairs a short time ago while carrying a pail of coal, fracturing five ribs. He was taken upstairs and until his death was without medical aid. He was a believer in the teachings of Dowie. A Coroner's jury reached the following conclusion: "From the evidence presented, we, the Jury, believe that if medical aid had been rendered the deceased would have recovered from his injuries, and that he would have certainly been spared the physical agonies which he evidently suffered; and we recommend that some law be enacted which will compel medical examination by licensed physicians in cases of accidents or external violence."

Warning by the Health Department.—The City Health Department has issued a warning that debilitating causes of all kinds, particularly alcoholism, predispose to attacks of pneumonia. Exposure to sudden changes of temperature should be avoided. The feet should be kept dry and warm and the throat and chest well protected. Fasting rather than indulgence should be adhered to. The higher the bodily condition the less favorable is the growth and virulence of the pneumonia germ. The laboratory examinations show a notable decrease in the findings of the influenza bacillus, indicating that the disease is declining. On the other hand, the organism of pneumonia is found in increasing numbers, and there is a

strong probability that, with the usually trying March weather, there will be a marked increase in the prevalence of this malady.

Prevention of Insanity.—At a meeting of the Chicago Society of Internal Medicine, held February 25th, Dr. D. R. Brower read a paper on this subject, in which he said that insanity has increased out of all proportion to the increase in population during the last thirty or forty years. The statistics of Great Britain show that the proportion of insane to the whole population in 1860 was 1 to 523, in 1890 1 to 320, and in the State of Illinois the proportion of insane to the population was about 1 to 400. Preventive measures must come from the States. The State has assumed the care and maintenance of the insane. Indeed, it has made it a criminal offence for anyone to restrain them without the consent of its courts, and inasmuch as the State has assumed this great responsibility, it is its duty, in the interests of altruism and of economy, to use every possible means for the prevention of insanity, to find out how this may be done, to educate the people and to enforce methods of prevention. The State should, through the State Board of Health, furnish the people with information that they can comprehend as to the causes of insanity and of methods that may be applied for its prevention, and the State should be as ready with the same paternal power it uses in smallpox, cholera, etc., to enforce those methods that have the approval of the medical profession. The State should make its insane hospitals schools for instruction in insanity. It should by competent authorities select by competitive examinations senior students in medicine from medical colleges and place them in hospitals for the insane as internes. These internes should remain at least one year, receiving board, lodging, and a small gratuity at the end of the service. By adopting such methods at least thirty physicians every year in Illinois with mental attainments of a high order will be sent forth with a good clinical knowledge of insanity, its prevention and treatment, and become so many prophylactic centers in as many communities; but a few years would be necessary to have from one end of the State to the other an abundance of skilled medical men competent to solve this great problem. The State should assist in providing treatment for carefully-selected cases in wards connected with the hospitals now to be found in every city and almost every town in the State, and the requirements for admission should be the same as those which apply to any other disease. Heredity as a factor in the production of insanity can be reached radically by only two methods, first, the regulation of marriage, and second, the asexualization of degenerates, but in order that either one of these methods may be established there must be a great deal of educational work done by the medical profession.

GENERAL.

Kentucky State Medical Society.—The forty-sixth annual session of this Society will be held in the city of Louisville May 22, 23, 24, 1901.

American Neurological Association.—The twenty-seventh annual meeting of this Association will be held in Boston on Wednesday, Thursday and Friday, June 19, 20 and 21, 1901. The meetings will be held at the Boston Medical Library. Members are requested to send the titles of papers to be presented by May 20th.

Grace Hospital of New Haven.—Following the summary dismissal a few days ago of Dr. Arthur S. Cheney, head of the surgical staff in Grace Hospital, on the charge of taking fees from a hospital patient, comes the announcement to-night that his father, Dr. Benjamin H. Cheney, chairman of the board of physicians and surgeons of the same hospital, has resigned. Coupled with the same announcement is another that his mother, Mrs. B. H. Cheney, chairman of the woman's board of Grace Hospital, has also resigned.

Medical Examination of Engaged.—The Senate passed a bill March 4, 1901, which is designed to limit divorces in Indiana by preventing ill-chosen marriages. The bill provides for the appointment of a commission by the Governor which shall be composed of two women, who are mothers, two physicians of conceded ability, and one attorney of high standing, who shall prepare rules for the government of officers in the issuance of marriage licenses and of ministers in performing ceremonies; and examinations shall be made of all applicants for licenses, and no marriages shall be celebrated in the State unless the requirements are complied with. The idea back of the bill is to require physical examinations and an inquiry into the parentage of the applicants to the end that their union may be prevented in the event that conditions inimical to the welfare of society should be foreshadowed as a result of marriage.

Obituary.—Dr. Richard J. Dunglison died at his home in Philadelphia Monday, March 4th. He was a son of Prof. Robley Dunglison and a grandson of Dr. John Leadam, a celebrated London surgeon. Dr. Dunglison was born in Baltimore, Md., November 13, 1834, was graduated from the Central High School and the Collegiate Department of the University of Pennsylvania, receiving the degree of A.B. in 1852 and A.M. in 1855. In 1852 he took up the study of medicine under his father's direction, and, after a four years' course in the Jefferson Hospital Medical College, graduated from that institution in 1856. He was the edi-

tor of "Dunglison's Dictionary," originally written by his father, Dr. Robley Dunglison, and many other medical works of reference. He was acting assistant surgeon in the army from 1862 to 1865, and executive officer of a local army hospital during the closing years of the Rebellion. He was a member of the County Medical Society, Mutual Aid Association, State Medical Society, American Medical Association, International Medical Congress and many similar organizations, in nearly all of which he held office.

The Law and the Physician.—According to the *San Francisco Examiner* a physician of that city was ordered to pay $2,000 damages by the Supreme Court. Evidence showed that over a year ago he was called to attend Mrs. Margaret A. Lathrope. An operation was deemed necessary by him. Her screams interfered with his application of the necessary instruments. He finally said that if she "did not quit he would quit." And leave he did, although the patient was in agony. The husband followed the physician to the door, begging him not to go. Refusing to come back, it was over an hour before another doctor was obtained, the woman in the meantime suffering dreadfully. The other surgeon performed the operation, saving the mother's life at the expense of that of the child. Mr. and Mrs. Lathrope sued the physician and got a verdict for $2,000 in the Superior Court. The case was appealed and the Supreme Court upheld the decision of the lower court, as follows: "It is the undoubted law that a physician may elect whether or not he will give his services to a case, but having accepted his employment, and entered upon the discharge of his duties, he is bound to devote to the patient his best skill and attention and to abandon the case only under one or two conditions. First, where the contract is terminated by the employer, which termination may be made immediately. Second, where it is terminated by the physician, which can only be done after due notice and an ample opportunity afforded to secure the presence of other medical attendance. * * * He can never be justified in abandoning it (a case) as did this defendant, and the circumstances show a negligence in its character amounting well nigh to brutality."

CORRESPONDENCE.

THE MEDICAL SOCIETY OF THE STATE OF NEW YORK AND THE AMERICAN MEDICAL ASSOCIATION.

To the Editor of the MEDICAL NEWS:

DEAR SIR: In view of the recent paper by Dr. Frank Van Fleet of New York City, discussing frankly, but temperately, the relation of the double State and county organization of the regular medical profession in this State, it may seem that further writing on the same general subject is unnecessary, but as it has been for some time my intention to prepare such a paper, and as the standpoint of any two writers is somewhat different, additional consideration of this subject may be allowable.

Whatever is said on this subject depends so largely on the attitude of the writer that it is proper at the outset to place before the reader a declaration of platform. The old bitterness which led to the establishment of a second set of regular medical organizations in the State of New York antedates the present writer's active professional life, and he has been the recipient of courtesies from both organizations and he enjoys the friendship of men prominent on both sides of the dissension. To this degree impartial, he is strongly biased by a veneration for whatever is ancient and established, by a corresponding dislike of all schism, religious, political or professional and by a deep regret that the framers of the Constitution of the United States were not able, as was seriously considered at the Constitutional Convention, to do away entirely with the sovereign states and to establish a central national government. Thus, he is at the same time as loyal to the State Society as the older men who advocated a policy which inevitably led to the separation from the National body and as anxious for representation in the latter as the most energetic seceders who formed the Medical Association of the State of New York.

Since all privileges of a scientific and social nature attaching to the American Medical Association are open to every medical practitioner of the country in good standing, who is not avowedly in opposition to the principles of the general medical profession—alias Allopaths—and since the medical politics of the Association to the ordinary mind are not worth the trouble and expense involved, it may well be asked, Why consider seriously the privilege of delegate membership at all? The writer is sufficient of a Yankee to answer this question with two others: Why does the average American, whose political privileges amount practically to casting a ballot once a year for one of two sets of men selected by forces entirely beyond his control, value his franchise so dearly? and, Why does the chaste bachelor have a sentimental objection to emasculation? It certainly is not pleasant for the medical man from New York to feel that he is debarred from the privileges enjoyed by members from other States and that he must either abandon his franchise in the American Medical Association or obtain it by membership in a private or semiofficial State organization.

The breach between the New York State Society and the National organization was due to the efforts of the former to secure decent requirements as to medical training and the education of medical students. To obtain leg-

islation, it was necessary to combine with Homeopaths and Eclectics and, more or less formally, to recognize these schools. That the action of the Society was wise has been amply proved by the results not only in New York, but in other States which have followed the example and, strangely enough, in one or two instances without incurring the displeasure of the American Medical Association, or at least without the loss of representation of their State societies in the National body.

Indeed, the exasperating feature of the whole matter is the utter needlessness of the schism at present existing in our State. A double State and county organization of medical men is exactly as useful and desirable as two tails on a cat. The medieval notion that one must be in full sympathy with every detail of an organization, or must get out and establish an organization of his own, has been the curse and scandal of Christianity, has been the cause of most of the political troubles of the world, and it is the main evil with which the medical profession has to contend. A little tolerance and indifference, a couple of generations ago, would have deprived the school of homeopathy of its excuse for existence and would have obviated one of the marked weaknesses of the medical profession. The same spirit in the late seventies and early eighties would have avoided the greatest source of discord in the regular profession of our State.

If there existed a genuine and marked difference of principle between the two sects of regulars in New York, one might view the situation with equanimity, but no such difference exists. The adherents of the Society have recognized Homeopathy and Eclecticism only to the degree of making a compromise which was a necessary step toward an end the utility of which every physician and layman must admit. On the other hand, the adherents of the Association seem to feel that it is a theory and not a condition that confronts them. Many of the most active supporters of the Association consult freely with Homeopaths, and it is broadly hinted that some of its members even seek such consultations. On signing the application blank for the American Medical Association, the writer remarked, "There, I suppose I have committed perjury for I certainly shall not refuse to give advice for a patient in an emergency, even if the attendant is a Homeopath—although I would surrender a case rather than call a Homeopath in consultation." "Oh, no," rejoined one of the stalwarts, "we simply confess that consultation with a Homeopath is an absurdity; we don't promise not to hold it."

The worst feature of the whole matter, at present, is that at the very time when a spirit of toleration and harmony is rapidly developing in the profession, and when there is needed only a little patience until a few desirable funerals have taken place, so that the obstacles to reunion of the State Society and the National Association may be removed, the State Association is making the most strenuous attacks on the State Society and its county branches. Specious appeals are being made to physicians, especially young men who do not realize the conditions, to leave the legal medical organizations of the State. It has recently been made impossible to secure delegate membership in the American Medical Association through local societies and thus the issue between the State Society and the State Association is being forced. Schemes are on foot to swing bodily the smaller county societies into the new organization. The most insidious flattery in the way of personal invitations to read papers at Association meetings and even the relative convenience of travel to New York City instead of Albany and in October instead of January are brought to bear as arguments. It is even stated that the Association has now secured full legal equality with the Society—a statement which is not borne out by fact, although the Association has, by vigorous lobbying, secured more than the usual privileges of private, incorporated societies.

It is bad enough, in this country to destroy anything, even an old house, that has begun to attain respectable antiquity, but, in the present instance, there is a far more practical reason for respecting the ninety-five years of the Medical Society of the State of New York. This Society is a marvelous example of the influence and dignity of the medical profession of a century ago and of the wisdom and foresight of our early legislators. It is the precedent, for the whole country—and for not a few older nations—for establishing the medical profession as a responsible part of the machinery of government. The American Medical Association is, in comparison, a purely informal gathering and even the *Pharmacopœia* has no legal status other than the weight of common acceptance. Every State that has accomplished anything in the way of regulation of medical practice and medical education has, directly or indirectly, based its argument to the people and their representatives, on the Medical Society of the State of New York. The time is not far distant when it will be almost imperative to secure something of the nature of a National medical board, at least in supervising the medical affairs of our new possessions. Already, the weakness of the bond of purely voluntary support of National organizations is being felt and admitted. Is it wise for a minority of the medical profession, a minority whom, personally and scientifically, we must consider with respect, to attack the earliest and most perfect example of State medicine that we possess?

A. L. BENEDICT, M.D.

Buffalo, March 1, 1901.

OUR LONDON LETTER.

[From Our Special Correspondent.]

LONDON, February 23, 1901.

EXTRAORDINARY FRAUD OF A MEDICAL STUDENT —OBTAINING HIS OWN DEATH-CERTIFICATE— THE OUTBREAK OF ARSENIC POISONING FROM BEER-DRINKING—HEAVY DAMAGES AWARDED AGAINST THE MANUFACTURERS OF THE CONTAMINATED SUGAR—THE DRINK QUESTION— THE SOUTH AFRICAN HOSPITALS COMMISSION —SEVERE CRITICISM BY MR. BURDETT-COUTTS— AN EQUIVOCAL REPORT—RESPONSIBILITY NOT FIXED—WANT OF POWERS IN THE TAKING OF EVIDENCE—REFUSAL OF EVIDENCE BY THE COMMISSION—ANALYSIS OF THE EVIDENCE—A MAJORITY OF THE OFFICIAL WITNESSES IN FAVOR OF THE ARRANGEMENTS BUT THE INDEPENDENT WITNESSES WERE AGAINST THEM.

"I AM the dead body," said Mr. William Browning, described as a Dublin medical student, when arrested on a most extraordinary charge of fraudulently obtaining a death certificate. He was living in lodgings in London and complained of serious illness, took to his bed, and sent a note to a doctor asking to be attended. He described symptoms pointing to Bright's disease. His temperature was high and there seemed no doubt that he was seriously ill. The doctor attended and sent medicine regularly. One evening the patient gave out that he was much worse and had sent for his brother. On the following morning he shaved off his moustache made other alterations in his appearance and proceeded to the doctor's office where he asked for a certificate of "his brother's" death. In answer to the usual questions he said he was present at the death and described the manner in which his brother had died, the details being precisely those which would be expected in Bright's disease. As the nearest relative he was therefore given the certificate. The doctor at the time noticed the close resemblance which the man bore to his alleged brother. So far all went well, but as the doctor made it a custom to see the dead bodies of his patients he proceeded to the house. The room was closed, but after some delay a key was found and he effected an entrance. The room was in darkness, but on the bed he could see the dim outlines of what appeared to be a corpse. The head was wrapped in a pillow-case, which struck the doctor as strange. On pulling the covering he found that there was no head at all! Then, on turning back the sheet he found that the "body" was composed of a couple of blankets. The doctor at once summoned a policeman. On searching the prisoner's box a life policy for $1,000 was found. He alleged that his sole motive was to make his people believe that he was dead.

Messrs. Bostock of Liverpool who supplied the sugar contaminated with arsenic to about 500 breweries in the North of England and were thus the sole cause of the epidemic of arsenical neuritis have been mulcted in heavy damages by one firm, which has received £1,980 for loss of beer which had to be destroyed. Another fatality from arsenical neuritis has occurred. A man, aged fifty-three years, was in the habit of drinking from two to three pints of beer daily up to the time of the arsenic scare, but since then had not touched any. After ailing for four months he became an out-patient at the Manchester Royal Infirmary. He was admitted as an in-patient on January 9th and improved until February 4th, when he sank rapidly and died of heart-failure on the following morning. The necropsy showed that the case was distinctly one of arsenical poisoning. Two other cases of arsenical poisoning have also been the subjects of inquests, with like result.

The drink question continues to trouble medical authorities not a little. The *Lancet*, in an article on the drinking habits of the nation, points out that since the days of Todd—a generation ago—no medical leader has sanctioned the reckless use of alcohol. In an address recently delivered Dr. Carter of Liverpool points out that while the mortality from almost every disease has fallen that from alcoholism is an exception. The deaths have risen from 45 per 1,000,000 of those living in 1878 to 77 per 1,000,000 in 1897. Dr. Carter is impatient with such matters and calls for "legislative or other action."

Mr. Burdett-Coutts, whose now famous letters to the *Times* were the cause of the appointment of the South African Hospitals Commission, has criticised the methods and findings of that body at great length in the daily press. He claims that public opinion has expressed itself very generally to the effect that the report practically justifies all his contentions. But, because he does not find the necessity for that root-and-branch reform for which he has striven made sufficiently clear by the conclusions and recommendations of the Commission, he once more has recourse to the press. The governing defect of the report according to him is that it is weak, inconclusive and equivocal. While it affords confirmation of every charge he has made, it can at the same time be construed into a vindication of everything that has occurred and of every person, authority, and department. In hardly a single case is the responsibility for defects pushed home to its true cause, nor are the widespread and injurious results adequately described. The first essentials to real reform are therefore not supplied. But whenever responsibility can be deprived of a particular incidence, then the Commission treats the matter with some decision. Thus, the undermanning of the Army Medical Corps for which both political parties are responsible is brought into special prominence. When the question of responsibility grows "warmer," as in the case of hospital provision, the delicacy of touch becomes obvious. The crucial test of provision is that there should be hospitals other than those on the march sufficient to accommodate 10 per cent. of the troops. This is a lesson taught by every war.

On February 27th for 100,000 men only 3 per cent. accommodation was provided. But the Report is silent on this point.

The method of taking evidence Mr. Burdett-Coutts strongly criticises. The Commission had no power to compel the attendance of witnesses or the production of documents, or to take evidence on oath. The sense of discipline and the fear of the consequence must have been a great deterrent to official witnesses giving evidence against their superiors. The Commission themselves say, "Our private soldiers are very slow in making complaints." The vast majority of the official witnesses gave evidence in favor of the medical arrangements, but the majority of the independent witnesses, naturally a small section in South Africa, gave evidence against the arrangements. Again out of 75,000 patients treated only 174 were examined—a very insufficient number. The total number of witnesses examined was 462, of which 177 were official. No patient who was in the "famous" hospital of Bloemfontein appears to have been examined, though at least 1,000 men must have passed through it. Of the patients examined only 20 were officers, yet Mr. Burdett-Coutts was denounced as insulting the British Army because he declared in the House of Commons that officers would not come forward. Of the 154 men examined the evidence of 74 was taken at a single afternoon on the occasion of a "state visit" to Wetley. From a great deal of experience in taking evidence on this subject Mr. Coutts is satisfied that such a hurried method of dealing with more or less reluctant witnesses is ineffectual. He found in taking evidence on this subject that even with the aid of a shorthand writer it was hardly possible to get a detailed statement in less than an hour. But in spite of all the deterrent circumstances 47 of the 174 witnesses gave evidence against the arrangements. More than this, the Commission actually refused evidence. Immediately on its return from South Africa Mr. Coutts wrote to the president stating that witnesses who had made statements to him pertinent to the inquiry were willing to go before the Commission. But the president replied that they had decided to hear no more evidence. Now, whether an unprejudiced reader will be convinced or not by the preceding criticisms of Mr. Burdett-Coutts, who is an exceedingly able advocate, making the most of his case, I cannot see how two opinions can exist on this extraordinary refusal of the president—a refusal which is rendered all the more flagrant by the fact that Mr. Coutts was the real protagonist of the struggle and that the Commission was largely in the hands of the other side and that the president had asked him specifically more than once to suggest witnesses. His witnesses consisted chiefly of Colonials, yoemen, volunteers and reservists, who were taking their discharge. They wrote to Mr. Coutts voluntarily. None of them bore any suspicion of malingering or "grousing." They scorned to complain of hardships in the field and unavoidable privations. They confined themselves to faults the remedy for which they could see with their own eyes. When lying side by side in hospital with the regulars the latter had constantly said to them, "Mind you speak up for us when you go home. Tell about these things. It won't hurt you. You know we daren't."

Analysis of the evidence given before the Commission gives the following results: A, *Official*, 1 field marshal, 1 chief of staff, 1 press censor, all in favor of the arrangements; 8 generals, 4 colonels, 1 major, 3 captains, 1 lieutenant, all for, except 3 moderate; army chaplains, 14 for, 4 moderate against. Including transport, ordnance and other officials, out of a total of 56 there were 7 against. In the Army Medical Corps 10 out of 121 officials were against the arrangements. B. *Independent*, civilian doctors in military hospitals, 18 for, 11 moderate, 23 against; civilian doctors in private hospitals, 6 for, 5 against; local clergy other than army chaplains, 6 for, 5 against; civilians (miscellaneous), 5 for, 9 against; lady visitors, 5 for, 9 against. Thus, out of 105 independent witnesses, 55 were against. So much for Mr. Coutts' general criticisms of the methods of the Commission. In my next letter I will deal with a further publication of his in which he comes to close quarters with the evidence.

TRANSACTIONS OF FOREIGN SOCIETIES.

German.

PES PLANUS—OVARIAN DERMOID CYSTS—RETENTIO PLACENTÆ CORNUALIS—MANUAL EXTRACTION OF THE PLACENTA—RACHITIS IN ANIMALS—GASTRIC ULCER.

PETERSEN, at the Physiologischer Verein in Kiel, June 25, 1900, in a paper on flatfoot stated the generally-familiar anatomical, physiological and mechanical considerations of the matter and then proceeded to an elucidation of the terms of function. So good an authority as Henke does not mention *pronation*, while others call it at one time *pronation* and at another *abduction*. Uniformity in nomenclature is easily attainable if one imagines the body in the dorsal decubitus position, with the feet bent downward into the horizontal position upon the table till the line of the sole is parallel with the long axis of the lower extremity. In this manner the foot will be in the same relation to the leg as the hand is to the forearm. Starting with the foot in this position *pronation* and *supination* will be any turning of the foot about the long axis of the limb precisely as in the case of the hand, and abduction and adduction will be respectively movement in the sagittal plane of the limb from and toward the midline of the lower as with the hand in the upper extremity. The acknowledgment of such universal distinctions will, of course, be of greatest service in the line of accuracy. The best definition of this common condition is probably given by

Henke in these terms: Pes planus is pes flexus, reflexus, abductus and later may be added pronatus. First, as to pes flexus: The flexion occurs in the upper joint (*talocrural or tibiotarsal joint*), but usually remains within physiological limits. The head of the astragalus is turned backward and the tuberosity of the os calcis is raised. Second, as to pes reflexus: The flexion forces both the astragalus and the calcaneum backward and slightly or tends slightly to raise the point of the foot from the ground. Reflexion then occurs in the mediotarsal joint and when physiological limits are exceeded a subluxation occurs. Then the arch of the foot is flattened and slightly sunken. Third, as to pes pronatus: The twisting of the foot in this element of the lesion is mainly in the lower ankle-joint, especially the taloculcaneal articulation. The os calcis turns about, so that its outer side looks more and more upward and, finally, in the last degree of bad cases, makes an articulation with the point of the external malleolus. The whole calcaneal axis is displaced outward beyond the center of gravity of the leg. The height of the arch of the foot touches the ground and the foot has become deformed. Even here at this stage all the physiological limits of motion are exceeded. Pes abductus, the fourth element, presents a displacement outward of the foot so that the anteroposterior axis of the foot is broken into an angle. The apex of this angle is at the mediotarsal joint and is formed by the head of the astragalus which has sunken inward and downward. To this actual abduction must be added a certain degree of pronation. Concerning the mechanical cause of flatfoot, the speaker said that the ordinary manner of walking with the toes turned outward is a highly favorable condition for it, because in this manner the outer border of the foot first reaches the ground and first receives the weight of the body, while the inner remains lax. This uneven distribution of the body weight has a large causative influence upon the succeeding stages of the finally complete lesion.

HABS, at the Medicinische Gesellschaft zu Magdeburg, November 8, 1900, presented a specimen of ovarian dermoid cyst obtained by operation the contents of which were the following parts of a face: The upper eyelid was fully developed and the lower but partially so. Each had lashes and the upper a brow. Behind them was a sac representing the eyeball. A considerable part of the forehead, with scalp and hair, was present and the supporting base of it all was a fragment of the frontal bone.

THORN discussed the important topic of retention of the placenta in the horns of the uterus. Just as the implantation of the fertilized ovum over the internal os may lead to abortion, its lodgment in the uterine cornua is filled with danger. Foremost is the fact that when abortions take place under these conditions, the chorion is very apt to be retained. Out of the last 100 abortions carefully observed eleven suffered from cornual retention of the chorion, to which may be added two recent cases. The anatomical form of the uterus is a potent factor in causing it by an undue development of the horns. Displacements are also important, especially retroversions. Of the eleven cases mentioned the right cornu was five times and the left cornu six times the size of the chorion. The treatment was for the most part curetting, repeated in some cases as often as three times, but without result. Such retentions of the chorion are much more important in practice than the text-books state. If the bleeding and other symptoms persist after the curetting, it is best not to repeat it often or too vigorously, lest the uterus be perforated. Only an adept can expect to clean out successfully a deep uterine horn. It is far better for every one to dilate the cervix and explore with the fingers in order to know just what the conditions are. Such dilatation had best not be done with force, but with laminaria or some of the gradual means. Under antiseptic precautions they are safe and are free from any risk of lacerating or rupturing the soft uterine tissues. The technic of a digital evacuation of the uterus is as follows: When the cervix is with difficulty penetrable, it is well to seize its anterior lip with a volcellum, so as to draw it well over the fingers upon the hand and secure it there. In this manner a uterus with a long neck and a large, soft body can be more easily explored and treated. Digital emptying of the womb should be oftener resorted to, while its details are more difficult than those of mere curetting it is *per se* far less hazardous. At the present time it is probable than manual extraction is practised far oftener than necessary. In consequence of this and very likely still more of faulty technic it is responsible for the majority of puerperal fever cases. In his own consulting practice he finds it is the cause of three-quarters of all the troublesome postpartum complications and sequelæ. He therefore utters the dictum that present methods may be greatly improved. Olshausen recommends rubber gloves in cases which are intrinsically septic and when the opportunities for sterilizing the hands are imperfect or the hands have, in spite of care, probably been in contact with septic material. Certainly rubber gloves in more general use will be of service. To the experienced hand there are two moments during the extraction, which are trying and lead to imperfect work. First is that of an alarming hemorrhage which almost always follows the introduction of the hand. Second is the unfamiliarity of the hand to the feeling of the postpartum uterine cavity. The undue haste on account of the first factor and the incomplete work of each cause only partial

extraction to result, or the infection of the placental site by a reintroduction of the hand through the externalia. Vaginal extirpations have taught us that uterine hemorrhage can be lessened by drawing the organ downward until the external os corresponds with the introitus vaginæ, thus causing a strong kinking of the uterine blood-vessels, with consequent decrease in the flow of blood. The postpartum uterus similarly permits itself to be drawn far down into the vagina by means of a volcellum attached to the anterior lip of the cervix. If one desires to be exceedingly careful one has only to insert a speculum in addition to have all in full view. The addition of a pair of wide short-blade specula to every complete obstetrical set is now an absolute necessity. In an emergency the blades of the forceps can be used as retractors. Another efficient substitute is to seize the anterior and posterior lips of the cervix with strong volcella and, drawing the uterus strongly down, consign each to an assistant for holding. The gloved left hand now follows the umbilical cord into the uterine cavity and cleans it out, while the fundus is supported from above by the right hand.

HANSEMANN at the Berliner medicinische Gesellschaft, December 12, 1900, read a contribution to the study of rachitis, concerned chiefly with observations of the disease among monkeys and other animals confined at the museums. Monkeys in confinement in almost any climate are very apt to develop rachitis in varying degrees, often very extreme. The bearing of simply unnatural conditions in their confinement is of manifest weight and very suggestive of the real cause of the disease among children. The absence of ordinary chloride of sodium from the food has been claimed to be a potent cause too. This the writer has not yet been able to verify and prove beyond all doubt, but it probably has considerable influence on the disease.

W. KÖRTE, at the Verein für innere Medicin in Berlin, December 17, 1900, discussed the subject of gastric ulcer and its relation to surgery. Primarily gastric ulcer belongs to the realm of internal medicine and only its sequelæ or complications come under the care of the surgeon. Even in these it is the rule that first of all the various means of medical treatment shall first have been exhausted. Benign cicatrical stenosis is the first good indication for surgical interference. In carcinoma the difficulty is that a diagnosis is established too late to permit of any good result. In the benign scar-tissue contractions the treatment is directed not to the ulcer itself, but to the result of it. The open ulcer will be amenable to surgery when its site can be fixed at the pylorus and all means for internal treatment have failed. Hemorrhage often constitutes an urgent indication, but surgery is then both a last and a doubtful resort. What shall universally be the deciding factors in hemorrhage determining for operation cannot be fixed. One must distinguish one case from another on its own merits. The dangers of gastric surgery are considerable and must never be lost to view. They comprise chifly the power of resistance on the part of the patient, which no skilful practitioner will permit to become too depreciated, and the condition of his other organs, notably the respiratory tract. Pneumonia in these cases appears to be rather common and its dangers are great. The size and depth of the ulcer are beyond the means of diagnosis until the abdomen is opened. The danger of infection of the peritoneum has within the power of human beings been reduced to a very small element. Sicknesses which follow the operation are various. The most important and fatal is pneumonia. Why it should occur is difficult to say. One theory states that the painfulness of the abdominal wound leads to shallow respiration and this faulty function favors the pneumonia. There does not appear to be any direct way of avoiding it and it is to be expected with a preceding bronchitis. In his own practice he has had twenty male and seventeen female patients submit to operation. The greater number of males is due in part to the fact that they must submit to the requirements of work and hence regard the operation as a shorter treatment and that, as a rule, men submit less patiently than do women to long and laborious courses of treatment. The smaller number of women is against the common experience that gastric ulcer is more common among them than among men. The age limits varied between sixteen and sixty-one. Among the younger series, females again predominated. The extreme duration of the preliminary sickness was thirty years; three less than one year and one stated it at five weeks. The usual symptoms were emaciation, vomiting and pain. In thirty-one patients dilatation coexisted with the stenosis. A few time the stenosis was situated not at the pylorus itself, but at the pars prepylorica. Excess of hydrochloric acid was present in twenty-four cases. The differential diagnosis from cancer is not always possible to make, not even at the operation unless a microscopical examination can be had. For conditions due to the ulcer, independent of stenosis, he had operated twice. Of the three operations, resection, pyloroplasty and gastro-enterostomy, the last is to be considered the normal in the majority of cases. Resection is to be thought of only when carcinoma is suspected. He has done five resections with one death, twenty-eight gastro-enterostomies with twenty-one recoveries. Two of those who died were lost by secondary hemorrhage from the ulcer. Hence the anastomosis cannot be regarded as curative of the bleeding of these sores. Before he adopted the retrocolic anas-

tomosis he had two cases of *circulus viciosus*, but since then he has had nineteen consecutive cases without it. There is one accident in these cases which he has observed a single time. The gastric ulcer may recur and perforate or may extent into the jejunum and then perforate. His patient had remained well three years and died of peritonitis due to a perforation of a peptic ulcer through the jejunum. The other ultimate results were permanent, as the patients without exception regarded themselves as healthy mortals. Pyloroplasty (Mikulicz-Heinecke) gives devious results. The Murphy button is not advisable. For the cure of actual bleeding, operation is very difficult to perform and uncertain in its results. It should be a final resort in the grave cases.

SOCIETY PROCEEDINGS.

NEW YORK ACADEMY OF MEDICINE—SECTION ON ORTHOPEDIC SURGERY.

Stated Meeting, Held January 18, 1901.

George R. Elliott, M.D., Chairman.

Deformity of Adolescence.—Dr. Homer Gibney presented a girl, aged seventeen years, tall, with a round back or posterior curve of adolescence of which he exhibited a tracing. He had applied the plaster jacket she now wore, only a few hours before, by placing her in the recumbent position, the body resting upon two uprights—one under the pelvis and the other under the point of greatest prominence of the back. Her head and shoulders were allowed to sag backward and downward. The position maintained, which caused the patient some suffering, was a marked overcorrection. Another jacket would be applied later. The patient did not bear the operation well, on account of cardiac complication.

Dr. Henry Ling Taylor said he had not understood what diagnosis had been made, but the girl seemed unusually tall for the age assigned, and asked if the possibility of gigantism had been considered, as a marked round back was common in such conditions.

Dr. Royal Whitman said he was familiar with the history of the patient. She had some cardiac disease, was rickety, overgrown and badly nourished. He considered her condition merely the round spine of adolescence partly due to her height and heart weakness, and called attention to the fact that the patient showed lack of ordinary intelligence.

Dr. W. R. Townsend said that he had put up a case of *spondylose rhizomelique* last week in a much straightened position, followed by a feeling of relief to the patient.

Dr. Taylor remarked that Kietley had described anterior crutches to hold the shoulders back, which would seem to answer the purpose of epaulettes as used in this jacket, without their disadvantages.

Epicondylar Fracture of the Elbow.—Dr. Homer Gibney presented a small boy who had sustained a fracture of the elbow three months previously. The fracture was above the condyle. When the patient presented himself at the Hospital the elbow was fixed at an angle of 105 degrees with but little movement. The joint was cut down upon by Dr. V. P. Gibney and the detached fragment sutured into place.

Dr. V. P. Gibney said the epicondyle and nearly the entire condyle had been displaced, interfering with motion. He had cut down upon the joint and separated it with an osteotome, cleaned off the site of the fragment and pushed it down suturing with kangaroo tendon; he then put the arm in a straight position, left it for four or five weeks and then allowed active motion. Passive motion was not employed.

Dr. T. Halsted Meyers commented upon the excellent result and remarked that children were often allowed to go on with fracture at the elbow united in poor position in the belief that they would outgrow the disability in great degree which was true, but it was better to correct the deformity entirely, even resorting to open operation when necessary. He called attention to Dr. Lloyd's excellent reports.

Coxa Vera.—Dr. Townsend presented a boy, aged 14 years, with the history that three years ago, without apparent cause, he began to limp and noticed that one leg was a little shorter than the other. The condition increased and he has had some pain. There was one inch of actual shortening. Radiographs were shown. He diagnosticated coxa vera of the ordinary type. He said there were two points to note; one, good flexion and extension with little adduction; the other, the smaller size of the limb. He showed another skiagraph of a patient in whom he had made the diagnosis sometime ago of coxa vera. In this case under observation for three years there had been a progressive shortening of about ⅛ to ¼ inch each year, now amounting to ¾ inch.

Dr. Whitman called attention to the importance of the limitation of motion, that although the patient still retained ten per cent. of abduction, there was an apparent shortening of two inches. This shortening and consequent disability was due to the limitation of abduction. This deformity might be overcome, after preliminary stretching of the contracted muscles, by a cuneiform osteotomy at the base of the trochanter which would reestablish the angle of the neck and thus relieve the strain upon it. He advised this operation in Dr. Townsend's patient, though the best results were to be looked for in younger patients, or at an earlier stage of the deformity.

Dr. Elliott asked Dr. Whitman how large a wedge of bone he would remove.

Dr. Whitman suggested cutting a paper model of the bone as shown in the skiagraph, and measuring on that the size of wedge to be cut out; he thought one with a base of ¾ of an inch would be sufficient in the case under discussion. The actual increase in length of the limb would be slight, possibly ½ inch; the important point was that there would be no apparent shortening, because there would be complete relief of the limitation of motion which caused the apparent shortening.

Dr. Townsend said he had performed the operation referred to by Dr. Whitman in two cases with good results and saw no reason why it should not be done in this case. In one patient, however, a little girl aged 7 years, who had slight coxa vera, he had applied a traction splint and did not see in this particular case why it was not as good as the osteotomy advised by Dr. Whitman. He thought apparatus worn for a few years would give good results in the mild cases.

Dr. Meyers agreed with Dr. Townsend that it would be better in the beginning of these cases to use some sort of supporting apparatus that would not need bandage or plaster, thus avoiding pressure atrophy. He thought the Campbell brace especially adapted for such cases. It removed part or all of the body weight and was inconspicuous.

Dr. Taylor said that this brace reminded him of the Dow's brace which was valuable when it was desirable to use a perineal crutch and allow motion at the knee. He cited cases which had done well under the use of the hip splint, but could not give final results as the patients had not returned after treatment was discontinued. He had recently seen a case of coxa vera in consultation when four out of six surgeons consulted were in favor of the splint treatment.

Dr. Whitman did not favor the use of apparatus as a routine treatment, believing that after its discontinuance the distortion was likely to increase and the nutrition of the parts was likely to be lessened rather than increased by the use of braces. He had been disappointed in the final effect in cases in which apparatus had been used. Finally, braces could not rectify the deformity, at best would but relieve the symptoms and check progress. His operative results had been satisfactory. The patients after operation did not limp. Nearly all of his operative cases were between the ages of six and ten years.

Dr. Louis A. Weigel, of Rochester, N. Y., thought apparatus might be used to advantage in the earlier stages of coxa vera for the removal of superincumbent weight which is an etiological factor. He believed the difference in size of the femora as shown in the radiographs was due to a true atrophy or arrest of development. If coxa vera is due to defective nutrition, development of the affected side would be retarded.

Fracture of the Neck of the Femur.—Dr. Townsend presented a man, nineteen years of age, who in December, 1899, fell a distance of 40 feet, striking on his hip. A diagnosis of contusion was made at the hospital to which he was taken where he remained in bed six weeks, at end of which time he could not walk except with the aid of crutches. He came to Hospital for Ruptured and Crippled in April, 1900, and a diagnosis of fracture of the neck of the femur was made. There was one inch of shortening, inversion of foot, crepitation at site of fracture when movements were made. Extreme pain and inability to bear weight on the limb or lift it from table when lying on his back. A long traction hip brace and a high shoe were applied and worn for six months. The man can now walk with little or no pain, and when lying on his back can raise his leg nearly as well as on the sound side. There is one inch of shortening, no crepitation at hip and all motions are possible without pain. Dr. Townsend thought traumatic coxa vera could be applied to this case.

Dr. Meyers thought the case very encouraging. He had presented a similar case some time ago in which bony union had been secured after four months of non-union. In all cases of fracture of the neck of the femur, an earnest attempt to get bony union should be made. In recent cases even in old people with proper splints one would succeed many times. In old people in whom there had been fracture without real immobilization for many months, the case was not hopeless under proper treatment.

Congenital Absence of Bone.—Dr. Weigel also presented a series of radiographs showing congenital absence of bones in members of the same family. In the five extremities shown, some bone of the hand or arm was absent. In one case, there was a rudimentary humerus, an imperfect thumb and three fingers. The mother had no thumb and gave a history of having borne twelve children, four of whom were deformed. The mother attributed her own deficiency to maternal impression, stating that her mother while pregnant was shocked by seeing a man at her house without a thumb.

Osteomyelitis and Tuberculosis.—Dr. Weigel exhibited another radiograph of a case of extensive osteomyelitis involving the whole of the tibia on one side. The patient had been treated for articular rheumatism. He thought it possible in most cases to make the differential diagnosis between marked suppuration and thickening or eburnation. When there is pus formation, he stated that it is difficult to get a clear definition of bone structure in a radiograph on account of the osteoporotic condition usually present.

Dr. Weigel also exhibited a radiograph of a tuberculous focus in a child's foot, together

with another radiograph taken two months later, showing the repairative process already well under way. This patient was treated by fixation and rest, any radical surgical interference being contra-indicated.

Dr. Townsend asked for a differential diagnosis between sarcoma of bone and osteomyelitis.

Dr. Weigel said that such a differential X-ray diagnosis might be difficult to make without an opportunity of comparing a series of cases.

Dr. Elliott showed a skiagraph of congenital dislocation of the hip which was taken after only fifteen seconds of exposure. The shortness of time exposure was important. With restless children long exposure was often impossible without an anesthetic.

THE MEDICAL ASSOCIATION OF THE GREATER CITY OF NEW YORK.

Stated Meeting, Held February 12, 1901.

The President, Robert F. Weir, M.D., in the Chair.

Menorrhagia in Young Girls.—Dr. P. F. Mundé was to have spoken on Uterine Hemorrhage: Its Causes and Significance, but was prevented by illness and his place was taken by Dr. W. Gill Wylie. Dr. Wylie thought too little attention was given to the proper establishment of menstruation, which is apt to be interfered with by study and, in the better classes of society, by social distractions. The hygienic care of young girls should be quite different from that of boys, and is of much greater importance. It is essential that the girl should be in complete health. If she is weak and anemic she ought not to menstruate at all. In such conditions of the system, however, the uterus is the easy prey of disease. The endometrium is apt to become abnormal. Fungous growths are developed, and, in consequence, the menstrual flow is excessive. It is too often lost sight of that in an enfeebled system the amount of menstruation ought to be less than in the case of a healthy girl.

Metrorrhagia Due to Neoplasms.—The two great varieties of neoplasms causing hemorrhage are carcinoma and fibroids. Neoplasms are most important after the age of forty. It has been the too-generally-accepted opinion that the menopause alone will cause abnormal flow. The fact is that the flow is not excessive except when disease is present, and the form of the disease is especially likely to be cancer. It should not be forgotten, too, that when taken in hand early cancer can be more successfully treated in the uterus than in any other part of the body, on account of the freedom from glandular complications. Unfortunately, the opportunity for this is too often lost, either because the patient, regarding the hemorrhage as merely incidental to the menopause, does not seek medical advice at all, or, if she does, because the physician is of this opinion also.

Metrorrhagia Due to Inflammatory Processes Within the Pelvis.—Dr. E. B. Cragin said that the three factors concerned are the endometrium, the muscle-wall of the uterus, and the blood-vessels of the organ. Acute endometritis is usually of bacterial origin, while chronic endometritis, as a rule, follows upon acute congestion and is not the result of acute endometritis. As to the muscle-wall, if the contractions are normal and unimpeded, the circulation of the uterus and the loss of blood from the organ are normal. If not, these are increased. The two conditions which most commonly interfere are (1) tumors of the uterine wall, and (2) chronic interstitial inflammation, causing atrophy of the muscle-wall. In acute endometritis rest is the most essential thing. In chronic, curettage is usually the best treatment. In cases in which repeated curetting fails to check the hemorrhage, the removal of the uterus may be justifiable.

Metrorrhagia During the Puerperal Process.— Dr. J. Clifton Edgar spoke first of the causes of antepartum hemorrhage. In addition to the more common ones of threatened abortion, placenta previa, extra-uterine pregnancy, etc., he said it was necessary to take into consideration the possibility of bleeding from the urethra and from hemorrhoids. Also the possibility of menstruation continuing into pregnancy, and even, in exceptional instances, throughout the course of pregnancy. Hemorrhage due to implantation of the placenta in the lower segment of the uterus is more common than is generally thought. Placenta previa is not supposed to occur before the thirty-second week of gestation; but Dr. Edgar said he had in his possession specimens from a case at the sixteenth week. Intrapartum hemorrhage may occur in both the first and second stages of labor. In the third stage the most important cause of hemorrhage is uterine inertia. It may also be caused by lacerations of the cervix, perineum, etc., and partial or complete inversion is also a rare cause. Secondary postpartum hemorrhage takes place in from six hours to six weeks after the completion of labor, and generally depends on causes operating at the time of labor. It may be due to anything which interferes with the progress of subinvolution, such as incomplete third stage, retention of membranes or blood-clots, displacements, and too early sexual intercourse.

Uterine Hemorrhages Due to Organic Diseases in Other Organs and to Constitutional Disturbances.—Dr. Andrew H. Smith said that hemorrhage due to diseases in other organs was almost always the result of ob-

structed circulation, as, for example, in affections of the heart and liver. His observation led him to think that women suffering from hemorrhoids were liable to excessive menstrual flow. Abdominal tumors also frequently press upon the veins to such an extent as to cause uterine hemorrhage. In all these cases the cause of hemorrhage was principally mechanical. In speaking of constitutional causes he referred to syphilis as liable to produce a fragility of the walls of the blood-vessels and to changes in the blood itself which tend to promote adhesive leakage in the vessels. The thinness of the blood, as it is commonly spoken of, in anemia, for instance, may result in uterine hemorrhage. Later on, when the anemia has reached a more extreme point, amenorrhea is apt to be caused. In *purpura hæmorrhagica*, where there is an abnormal condition of the blood and perhaps also of the vessels, it is not uncommon to find an undue flow from the uterus. Other causes mentioned were, prolonged lactation, extreme fatigue, scurvy, scrofula and the exanthemata. In typhoid fever there is a special form of hemorrhage, to which the name of uterine epistaxis has been given.

Treatment of Placenta Previa.—Dr. E. A. Ayers said that in many respects this was the most difficult condition to deal with in gestation. The problem was to secure expeditious dilatation, with as little hemorrhage as possible, and the delivery of a living child if practicable. Of the various methods of dilatation he had found the use of Barnes' bag the most satisfactory. Dilatation having been accomplished, the child is to be promptly delivered by podalic version.

Menorrhagia Without Pelvic or Uterine Disease.—Dr. J. R. Nilson said that in cases of this kind the object should be to promote reaction and assist what he termed the resistive forces. This could best be accomplished plished by judicious packing and systemic treatment.

Menorrhagia Due to Fragments of Retained Decidua.—In another class of cases, where there was some tenderness about the uterus, he always used the curette; and here packing should never be resorted to except, perhaps, as a temporary expedient. The whole cavity should by no means be curetted, but simply the rough spot caused by the fragments, which were almost always located in one of the cornua. The sharp curette was the proper instrument to employ, and it should be very lightly passed over the surface until the rough spot was encountered.

Types of Menstruation.—Dr. A. Brothers said that the practitioner sometimes saw various types referred to, such as the two-weekly type, the three-weekly type, the four-weekly type, etc. There was, however, but one normal type, *namely*, the four-weekly one, and when he read of anticipated or delayed periods he knew that there was in reality some underlying pathological condition.

When Tamponing Is Justifiable.—Dr. A. Flint, Jr., said he did not believe the tampon should often be used in ordinary menorrhagia, but there were a few exceptional cases in which the condition seemed to be of the nature of hemophilia and in which its use was attended with the best results. For instance, he had regularly tamponed one woman at each menstrual period for the last five or six years, simply for the purpose of saving her blood. As a result she had gained greatly in weight and had grown strong and healthy.

The Abuse of the Tampon.—Dr. Wylie thought the tampon had been greatly abused, and said he would not resort to it except in such cases as Dr. Flint had referred to. If it is successful in checking the flow, the uterus is apt to become distended and the blood which cannot escape through the cervix is forced out through the *ostia interna*, with the result of causing such evils as cellulitis, local peritonitis and ectopic gestation.

NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting February 5, 1901.

The President, Joseph Collins, M.D., in the Chair.

Locomotor Ataxia Trained by Fraenkel Method.—Dr. A. Wiener presented this man. He had been under this system of training for about one year, and while ataxia was still present, he had been very greatly improved, and was now able to go about even at night unaided. There had been no other treatment for the tabes.

Sarcoma of the Brain.—Dr. A. Wiener also presented a pathological specimen from a patient, seventeen years of age, who had first come to him about November 1, 1898. There was an absolutely negative history of alcoholism or syphilis. About two years before this time the patient had suffered from a severe fright, and almost immediately thereafter had had a severe convulsion. Nothing further had been noticed until the summer of 1898 when she had suddenly developed a difficulty of speech, with right facial palsy. She had frequently suffered from bad headaches for three months previously. On coming under observation there had been excruciating pain over the occipital region, complete deafness in the right ear and a bulging of the tympanic membrane. The right sternomastoid muscle had been in a state of constant contraction, and there had been a double optic neuritis, most marked on the right side. The voice was hoarse. Neither the upper nor the lower extremities had suffered any loss of power. There was no swaying when the eyes were closed, nor was there any bladder trouble. Her temperature was

100° F. The seventh, eight, ninth, tenth, eleventh and twelfth nerves were affected on the right side, and the sixth nerve on the other side. On November 8th, a slight ptosis had been noticed, and the twelfth-nerve palsy had become more marked. On November 28th there had been vomiting, vertigo and an increase in the ptosis of the left eye. On December 8th there had been complete third-nerve palsy on the left side, and the headache had been very severe. Having diagnosticated a tumor of the brain the patient had been sent to the Mt. Sinai Hospital. A mass had developed behind the ear, and on aspirating this, it had been found that the case was one of congenital sarcoma. On January 11, 1899, the third palsy had entirely disappeared on the left side, and the swelling behind the ear had grown larger. On January 21st, the patient had suddenly become confused and blind in both eyes. In April it had been decided to open the mass to relieve the pain. By June 30th the patient had been up and around again. In October there had been a complete brachial plexus palsy on the right side. The tumor had kept on growing until almost the size of the patient's head. The patient had died in February 2, 1901, and an autopsy had been performed. The whole tumor had been found below and outside of the brain. In front was a large giant-cell sarcoma which had completely destroyed the sphenoid bone. At the back the tumor had destroyed the occipital bone. The brain was exhibited, and it showed that only the pons had suffered pressure. The tumor had apparently started in the mastoid portion of the temporal bone.

Tendon Transplantation for Deformity of the Hand.—Dr. W. R. Townsend presented a case of this kind, which had been exhibited to the Society about one year ago. It was a case of infantile cerebral palsy. Instruments had been used at the time of birth, but no damage had apparently been done to the exterior of the skull. He had never been able to use the right hand, and it was a typical "claw hand" when the boy came under observation at the age of fifteen years. On December 21, 1899, an incision had been made over the wrist, exposing the tendons. The flexor carpi radialis, the flexor carpi ulnaris and the palmaris longus were divided just above the annular ligament. The hand was then turned over and an incision made on the dorsum of the wrist, and the extensor communis digitorum exposed. A dissection having been made through the interosseous space, the extensor tendon was pushed through, and, being too long, was doubled upon itself. It was then attached to the tendons previously mentioned. The union of the tendons had been satisfactory and permanent. The tendons had not shown any tendency to unite to the surrounding tissues. He was now able to write fairly well whereas formerly he could not even grasp a pen.

Dr. B. Sachs said that he had been deeply interested in this subject, and it was certainly the best procedure that had been suggested for these cases of contracture whether of spinal or cerebral origin. The problem was to split the tendon of the overacting muscles and unite them to the tendons of the underacting muscles, and so restore the equilibrium of power. It had been found prudent not to allow the patient to exercise much or to use electricity until the tendinous union had become very firm. It was unfortunate that this boy was not able to extend his fingers, yet he had secured good extension of the wrist. In spite of the tendon transplantation the boy experienced no difficulty in producing flexion when he desired to do so.

Dr. Schlapp remarked that it seemed to him that the boy's hand was decidedly larger now than when he had seen the case a few months ago.

Neurotic Skin Affection.—Dr. Creighton presented a young woman, of neurotic temperament, who four years ago had had hysteria and typical attacks of *grand mal*. One year ago she had had the grip followed by pneumonia, and this had been succeeded by headaches, aching spine and numbness in the left side. There were severe contractures in the left arm. A small painful tumor had appeared in the left palm, and had been removed by the family physician under cocaine. It had returned, and had been again removed. A galvanic current of 10 milliamperes had brought out a slight redness on the palm. Three days before menstruation a large red spot had appeared on the back of the forearm, and soon afterward several similar spots had made their appearance on the arm. A few days before the next menstruation these spots had returned, and, in addition, a number of large blotches on the left shoulder and on that side of the neck. The whole side was very hyperesthetic. There was slight narrowing of the visual field, and there was left-sided sweating. The speaker said that the case was very similar to one recently reported from Erb's clinic.

Dr. Joseph Fraenkel asked whether there had been a history of malaria, and whether the case might not be looked upon as one of morphea.

Dr. Creighton replied that there was no history of malaria, and the family physician had stated that the tumor which he had removed grew on the nerve. The microscopical examination had been made at the laboratory of the Presbyterian Hospital, and the report had been that there was a slight round-cell infiltration only, no nerve-degeneration being found. The thyroid gland was not enlarged.

Dr. C. L. Dana said that he had seen cases presenting just this appearance, but entirely free from hysteria.

Dr. W. B. Noyes said that four or five skin lesions were closely associated with nervous

troubles. Herpes zoster, erythema multiforme, Raynaud's disease, all were distinctly related to the nervous system, yet it was very difficult to state the exact relation. It had occurred to him that the element of suggestion regarding the connection with the nerve might be responsible for some of the phenomena present.

Dr. E. D. Fisher said that this could not be properly described as simple hysteria, or as the result of mere suggestion. The eruption was not characteristic of an hysterical state.

Dr. M. G. Schlapp said that these cases had been described before; they had been brought on by suggestion. In this case an injection had been given in the arm, and shortly afterward this dermatitis had first appeared. The eruption was not characteristic of any particular skin lesion, but it closely resembled cases that had been described as hysterical skin manifestations. In typical zoster there was frequently a degeneration of the nerve-fiber itself.

Dr. Sachs said that the case was a very unusual one, and he did not regard it as belonging to the class of hysterical hyperemia. It was certainly a distinct form of skin neurosis. The closest resemblance in the anatomical distribution was to herpes.

Dr. Joseph Collins said that if the girl should develop a pneumonia he would not be willing to call it an hysterical pneumonia; neither was he willing to call this an hysterical skin disease. He was inclined to think it was closely related to morphea.

Dr. Creighton said that a case had been reported very recently in which the gangrenous form had ultimately developed. This case had been described as hysterical. Dr. J. C. Johnston, the dermatologist, had seen this patient and had looked upon the case as hysterical.

Paralysis of the Spinal Accessory.—Dr. Pearce Bailey read this paper. He said that the chief interest of this nerve was surgical. Within the past year two instances had come to his notice of accidental section of the nerve. In most cases the paralysis which results from section was not particularly disabling, but such had not been the case in the instance to which he referred. When the sternomastoid was completely paralyzed the freedom of movement of the head was interfered with, but not totally abolished. In the two cases referred to the disability had been unusually great, and had led him to study more carefully the nerve-supply. It was now regarded as a spinal nerve, pure and simple. The spinal portion of the nerve, represented by the external branch, springs from the upper five segments of the cord. Paralysis of the nerve presents a varying symptomatology according to the site of the lesion. An injury outside of the skull to cause symptoms referable to both branches must be situated directly at the base of the skull. The extracranial lesions of the spinal accessory are confined to the external branch, and are nearly always traumatic. Neuritis in this nerve is rare. A case was cited to illustrate the possible traumatic origin of spinal accessory palsy by injury with a blunt instrument. In two other cases reported the paralysis had been directly the result of operation. In the second case the resulting incapacity had been so great that the right arm had been rendered practically useless for any heavy work. Neurorrhaphy had been performed about six weeks after the operation at which the nerve had been injured, and the ends of the divided nerve had been found separated over one inch. The improvement in motor power had been slow. A reference to literature showed conflicting views regarding the nerve-supply. Dr. Bailey said that the spinal center between the first and fifth cervical segments of the cord was fixed and constant, but occasionally all the axons pass to the muscle by the spinal accessory. Under these circumstances the motor impulses reach the trapezius through the spinal accessory, and hence section of it means total palsy.

Dr. W. M. Leszynsky said that he had seen a patient two months ago who had been operated upon for torticollis. Over one inch of spinal accessory nerve had been removed on the left side without relief, and the function of the muscle had remained perfectly normal. He had seen over an inch of the other spinal accessory nerve removed subsequently, yet the muscle had not been affected at all; hence he had held that it was useless in these cases of spasm to operate upon the spinal accessory nerve.

Dr. J. Arthur Booth said that he had had a case of spasmodic torticollis operated upon by section of the spinal accessory nerve. A little more than one inch had been excised, and the sternomastoid and part of the trapezius had been paralyzed as a result.

BOOK REVIEWS.

THE SURGICAL TREATMENT OF CONGENITAL AND PATHOLOGICAL DISFIGUREMENTS OF THE FACE. Abstract of the MÜTTER LECTURES of the College of Physicians of Philadelphia for 1900. By JOHN B. ROBERTS, A.M., M.D. The Philadelphia Medical Publishing Co., 1900.

THIS is a very succinct and suggestive exposition of a subject that has been allowed to remain too much in the hands of the charlatan. The fact that the book is made up from the Mütter Lectures is the best proof of its merit. The additional fact that it consists of abstracts only with the omission of all conventional details is the best proof of how useful it may be to the general practitioner. The subject is treated in thoroughly up-to-date fashion.

RUDIMENTS OF MODERN MEDICAL ELECTRICITY. By S. H. MONELL, M.D. Edward R. Pelton, Publisher, New York.

THIS little manual was prepared on the question-and-answer plan. This makes it necessarily rather fragmentary. It may be advisable to write up the subject in this way for the sake of students, but it ruins the connected treatment of the subject. Considering this disadvantage the little book is well done and comparatively complete. The unfamiliar ideas of electricity are conveyed in a pleasing and always in a plain, accurate and straightforward way.

INTERNATIONAL CLINICS. A Quarterly of Clinical Lectures and Especially Prepared Articles on Medicine, Surgery, etc. Edited by HENRY W. CATTELL, M.D. J. B. Lippincott, Philadelphia, 1901.

THE present number of "International Clinics" is well up to its usual high standard: The opening article is on the United States Pharmacopœia, by Dr. H. C. Wood of Philadelphia. This gives a very good idea of what the Pharmacopœia is and what it is not, and especially what it should not be, and is opportune, since during the year just passed the United States Pharmacopœial convention obtained a legal status by incorporation in the District of Columbia.

One of the striking articles is a characteristic contribution from Professor Potain of Paris on the Indications and Contra-indications for the Use of Digitalis in Treating Heart-disease. While the present volume was in press Professor Potain passed away. His precious lessons at the Charité in Paris are to be no more. Some of his work, especially such as he put in shape for clinical teaching, will surely live as a heritage for our generation at least. This dictum with regard to digitalis is interesting: "Its action in man and in animals may differ. With our patients it may differ in the healthy man and in the sick one, and even in the single patient it may act differently at different times, according to what the disorder may be. Observation alone is able to supply positive indication." This is the true status of our practical knowledge with regard to the use of digitalis.

There are interesting clinical articles on the Treatment of Chronic Gonorrhea by Alexander Renault of Paris; on Mercury and the Systematic Treatment of Syphilis by Professor A. H. Ohmann Dumesnil of St. Louis, and on the Treatment of the Complications of the Syphilitic Chancre by Professor Fournier of Paris. There are also very interesting special articles by Professor Grassi on Mosquitoes and the Prophylaxis of Malaria and on Blastomycetes as the Cause of Cancer by Professor Roncali of the University of Rome. Both these men were largely concerned in making the discoveries in the subjects of which they treat.

This is the second successive volume of "International Clinics" of the present series in which a considerable amount of space has been given up to genito-urinary diseases. It would seem that this narrow specialty occupies too much space considering of how little interest the subject is to a great many practitioners. In each of the last two volumes, moreover, the concluding article is a long monograph. In the present number the monograph is on the Morbid Anatomy of Various Diseases and occupies more than 100 pages. This is such a radical departure from the usual custom of the Clinics that it is very noticeable, and is not apt to meet with much favor among old readers.

DISEASES OF THE HEART; THEIR DIAGNOSIS AND TREATMENT. By ALBERT ABRAMS, A.M., M.D. G. P. Engelhard & Co., Chicago, 1900.

THIS is one of the series of monographs on practical subjects, each of about 150 pages in length, that is being issued by these publishers. This volume is a thoroughly practical little manual. There is in it a tendency to dogmatism that is inevitable, presumably, with text-book methods. The statement, for instance, "As a rule, pulmonary tuberculosis rarely develops in an individual with a valvular heart-lesion," is certainly doubted by good authority.

It is refreshing to find the importance that Dr. Abrams attaches to accidental heart-murmurs. He insists, very wisely, on the fact that heart-murmurs, especially systolic heart-murmurs, very often do not mean an organic heart-lesion.

Dr. Abrams finds a place in his diagnostic category for murmurs of apprehension. He thinks that even diastolic murmurs may be accidental or functional. This is carrying the question of function rather far, especially in the treatment of the subject for students. Diastolic murmurs are almost without exception (if there are really any exceptions) of organic origin. On the whole, the little book is a very suggestive presentation of the cardiology of the day.

PANAMA AND THE SIERRAS. A Doctor's Wander Days, by G. FRANK LYDSTON, M.D. The Riverton Press, Chicago, 1900.

THIS is a very pleasant, breezy story of a doctor's wanderings during a winter holiday. It is not a connected sketch of continuous travel, but a series of good things as seen through a doctor's eyes. Nearly everywhere one finds the doctor's way of looking at things, and there is a sympathetic view of human nature in varying moods that shows the man of large knowledge and large sympathies with Nature's under side.

The illustrations are reproductions of the doctor's own photographs; the book is full of them and none are introduced merely for the sake of adding to the number. The overworked doctor, who has been long sighing for a rest and whose dreams have brought to him passing thoughts of such a journey, will find the book pleasant, but yet unpleasant. One can scarcely help but envy the medical brother who has had the opportunity to see so much and who has seen it with his eyes so wide open.